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Marble Head, called Hera, from the Argive Heraeum.

# ART *and* ARCHAEOLOGY

*The Arts Throughout the Ages*

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VOLUME XIV

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## THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

By HAROLD NORTH FOWLER

### FOUNDATION, ORGANIZATION, AND WORK OF THE SCHOOL

THE American School of Classical Studies at Athens was one of the earliest results of the foundation of the Archaeological Institute of America. The Institute was founded in 1879 by Professor Charles Eliot Norton and those who followed his initiative, and in the first report of its Executive Committee we read, "It is greatly to be desired that a similar American School may before long enter into honorable rivalry with those already established." The schools here referred to as already established are the French *École d'Athènes*, founded in 1846, and the

German *Archäologisches Institut*, established in 1874. A committee appointed by the Archaeological Institute to establish the School at Athens held its first meeting June 22, 1881, and the work of the School began in the autumn of the following year. The French institution at Athens bears the vague title "*École d'Athènes*," and the German school is called "*Das Archäologische Institut*." The founders of the American School gave it a title which plainly indicates its object. It is not a school exclusively for archaeological research or training, nor a

PREFATORY NOTE.—At the request of Professor Capps, Chairman of the Managing Committee of the School, I have edited and, in part, written the present issue of ART AND ARCHAEOLOGY. For the articles on the history and development of the School and on excavations of classical and pre-Hellenic sites I have derived material from the fifth *Bulletin* of the School, "The First Twenty Years of the American School of Classical Studies at Athens," by the late Professor T. D. Seymour, from an unpublished history of the School by Professor Henry B. Dewing, and from Professor Capps, Dr. Hill, Dr. Blegen, and Professor Dinsmoor. A large part of the account of the excavations at Corinth is printed exactly as sent by Dr. Hill, and almost the whole of the article on the School and the Acropolis as sent by Professor Dinsmoor. Dr. Robert P. Blake kindly contributed the article on possibilities of research in the Byzantine field, and Professor George H. Chase, to whom I am indebted for much help throughout, contributed the articles on the publications of the School and, with the assistance of Dr. L. B. Holland, on Colophon. The three last-mentioned articles are printed with very few changes on my part.

HAROLD N. FOWLER.



The American School of Classical Studies at Athens.

school without definite and clearly designated purpose. The first paragraph of its Regulations reads: "The object of this School shall be to furnish to graduates of American universities and colleges and to other qualified students an opportunity to study Classical Literature, Art, and Antiquities in Athens under suitable guidance, to prosecute and to aid original research in these subjects, and to cooperate with the Archaeological Institute of America, so far as it may be able, in conducting the exploration and investigation of classical sites."

The opportunities for profitable study in Athens by American students have enormously increased since 1882, and the scope of the American School correspondingly extended. The University of Athens has become a great

university, and men of international eminence fill many of its chairs. The Greek Archaeological Society, with a membership extending throughout the world, has been instrumental in giving Greece a commanding position in this field. In the University, museums, and national schools are to be found specialists in every field of antiquarian studies, and their services are freely placed at the disposal of serious American students. The museums of Greece are incomparably rich in materials of every kind illustrating the civilization of the Eastern Mediterranean. The American School, therefore, while maintaining a small staff for the instruction and guidance of its students, commands all the scholarly resources of Athens for those who are pursuing studies in highly specialized fields. Thus the

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work of a student of sculpture was recently directed by Professor Stud-nizcka of the German Institute, and next year a student of numismatics from the Numismatical Society of New York will study under Dr. Svoronos of the Greek Numismatic Museum. Among the fields in which our American students have worked with especial profit to themselves and have made distinguished contributions to science are Ancient History and Epigraphy, Geography and Topography, and Architecture—subjects included in the phrase "Classical Literature, Art and Antiquities," if it is understood as it was meant by the founders of the School.

In 1882 the school possessed no building of its own and no endowment, but its work was carried on in rented rooms, and its expenses were met by annual contributions. That an institution founded upon such an insufficient financial basis has continued to stand for forty years is due in great measure to the excellence of its peculiar organization.

The French and German schools at Athens were maintained entirely by the home governments, and the same is true of the schools established later by Austria and Italy. Even the British school, founded in 1884, has received an annual grant from parliament. The American school could expect no direct assistance from the home government, but had to depend entirely upon contributions from other sources. It might have seemed prudent to wait until a modest endowment had been secured before opening the School, but the committee appointed by the Institute felt that delay was to be avoided and therefore "persuaded the friends of nine colleges and universities to undertake to pay \$250 annually, for each college, towards the current expenses of the

School, for a period of ten years or until the permanent endowment be secured." By this means funds sufficient for the needs of the infant institution were obtained and—what has proved to be of the greatest advantage—close connection between the School and some of the most important seats of learning in the United States was established. To the original committee were added members to represent the coöperating colleges and universities, and in this way the Managing Committee, which has for forty years conducted the affairs of the School, came into being. The inauguration of the system which has proved to be so satisfactory is due chiefly to the chairman of the original committee and first chairman of the Managing Committee, the late Professor John Williams White. In 1886 (as a measure of financial prudence), the School was incorporated under the laws of Massachusetts.

### ORGANIZATION

The vested funds and the property of the School are managed by a Board of Trustees, not exceeding fifteen in number, resident in the United States. The first President of the Board was James Russell Lowell, and the present incumbent is Mr. Justice William Caleb Loring, until recently an Associate Justice of the Supreme Court of Massachusetts. The immediate supervision of the School is, however, exercised by a Managing Committee, also resident in the United States. This Committee consists of representatives of the co-operating institutions—now thirty-three in number—a few members chosen for special reasons (e. g. Dr. Edward Robinson, of the Metropolitan Museum, and Dr. Arthur Fairbanks, of the Boston Museum of Art), and four members ex-officio: the Treasurer of the



View from the School. Monastery in the Foreground; Mt. Hymettus in the Background.

Board of Trustees, the Director of the School, the President of the Archaeological Institute of America, and the Chairman of the Managing Committee of the School in Palestine. The Trustees are for the most part men of affairs, the members of the Managing Committee for the most part men of learning. The chairman of the Managing Committee, elected by his colleagues, is the executive head of the institution. The first chairman, Professor John Williams White, served until 1887. His successor, Professor Thomas Day Seymour, served with rare devotion until 1901, to be followed by Professor James Rignall Wheeler, whose self-sacrificing care for the interests of the School ended only with his death in 1918. Each of these chairmen con-

tributed greatly to the material and scholarly development of the School. The present chairman is Professor Edward Capps. All the officers of the School in America, whether of the Trustees or of the Managing Committee, serve without compensation.

This plan of management has in practice worked admirably. There is no overlapping of function such as is observed in most institutions of learning. As an educational institution the School is under the full control of the colleges and universities that help to support it; its property and investments are in the hands of business men. Each year the Treasurer, representing the Trustees, informs the Committee of the amount of income available for the ensuing year, and the Committee makes

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its budget accordingly. There can be no expansion unless there are funds to maintain it, nor can a deficit be deliberately incurred. In fact, there are no annual deficits to be made up, and the endowment funds have not only never been encroached upon but have been consistently built up from year to year out of savings.

The staff at Athens now consists of a Director, an Assistant Director, an Annual Professor sent out by one of the cooperating institutions, and an Assistant Professor of Architecture; to these may be added the two Fellows, one of whom receives his stipend from the Archaeological Institute of America and the other from the School. As soon as funds are available additional Fellowships will be established, for instance in Greek Literature, Ancient History, Byzantine History, Early Christianity, and Architecture. Professor Joseph Clark Hoppin, who proposes to conduct certain supplementary excavations at the site of the Argive Heraeum, is under appointment as Research Professor. In the near future a Librarian will be appointed and probably an Executive Secretary.

### MATERIAL DEVELOPMENT

In 1882 the School had, as has been said, no endowment, no building, and no income beyond what was promised in the name of nine American institutions of learning. The salary of the first Director, Professor W. W. Goodwin, was paid by Harvard University. His first care on reaching Athens was to find quarters for the School, and early in October, 1882, the School took possession of the upper part of a house in a street named after Queen Amalia, the consort of Otho, first King of the Hellenes. This house, conveniently situated near the Arch of Hadrian and

the Olympieum, served the needs of the School until 1887, when the lease was abandoned in the hope that the new building planned for permanent occupation would be ready in the autumn of that year. This hope was not fulfilled, and for a year the School was housed in rented rooms in the city, but in the autumn of 1888 all was in readiness, and the School was at last able to take possession of its permanent home.

The School building stands on the southern slope of Lycabettus, commanding a view across the valley to Mt. Hymettus, over the roofs of the city to the Acropolis, and beyond the blue waters of the Saronic Gulf to the island of Aegina and the Peloponnesian mainland. The plot of ground on which it stands, about an acre and a half in extent, was presented to the School by decree of his Majesty King George I, on June 29, 1886. It is bounded on three sides by streets, and the grounds of the British School adjoin it on the west. Across the street to the south are the buildings of the Evangelismos hospital, to the east is the monastery "Of the Incorporeal Ones" (Ton Asomaton), and across the street to the north is a plot of ground jointly acquired by the British and American schools, in part by gift of the Greek government and in part by purchase,<sup>1</sup> in 1919. On our part of this it is proposed to erect a women's hostel, in order that the women who attend the School may have suitable and convenient quarters. The School building, as erected in 1888, contained a large room for the library, apartments for the Director and his family, a few sleeping rooms for students, a kitchen,

<sup>1</sup> The funds for the purchase of our part came from private subscriptions, supplemented by gifts representing five women's colleges—Bryn Mawr, Vassar, Mt. Holyoke, Smith and Radcliffe. President Thomas of Bryn Mawr took the lead in raising the money from the colleges.

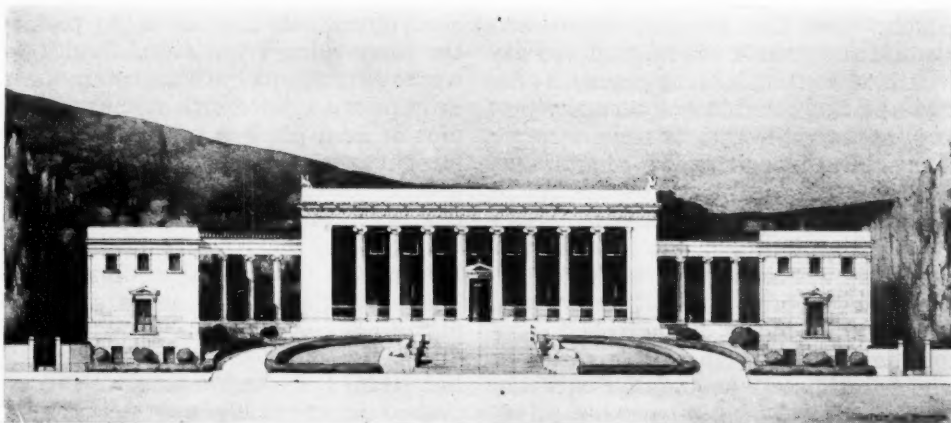
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and other rooms for various purposes. For many years this building was entirely satisfactory, but as time went on, and especially in view of the constant and gratifying growth of the library, additional space became necessary. It was therefore decided, in 1907, to build an east wing which should furnish the needed space and would also complete the original plan in a logical manner. The funds were contributed by friends of the School, chief among them being Mr. James Loeb, for many years and now a constant benefactor; his gift of \$25,000 made possible the addition. The work was finished in 1915. The addition increased the library space by about one-third, provided on the first floor a common room for the students, a study, an office, and a ladies' room; on the ground floor a kitchen, pantry, and student's dining room, and above the library four bedrooms for students. The School now possesses a building (p. 174) adequate for all present needs—except housing the women—and, in particular, a library room of ample proportions, containing a collection of books which has grown from about 400 in 1882 to about 10,000, and suitable also for the public meetings of the School, at which large audiences are present. It is of interest to note that the School's principal library fund bears the name of John Hay, having been contributed by Mr. Hay in 1903.

The financial position of the School has always been sound, because of careful management, but has never been satisfactory. The erection and enlargement of the building, the purchase of the land for the women's hostel, the growth of the library, and such excavations as have been carried on hitherto have been made possible by funds generously contributed for special purposes. For the payment of current ex-

penses the School has had to depend in great part upon the annual contributions of the cooperating colleges and universities, though an endowment fund of over \$150,000 has been built up out of gifts and savings. In 1917, when the pressure of the war began to be seriously felt, the Carnegie Corporation came to the rescue with a gift to endowment of \$25,000, and the Auxiliary Fund, modelled on the alumni funds of many colleges, was established. At the present time over 400 subscribers to this Fund contribute annually some \$6000, which goes into endowment. The annual budget is in the neighborhood of \$20,000.

In the spring of 1920 it became clear to the Managing Committee that the resources of the School, then amounting to only about \$14,000 annually, were no longer adequate to maintain it on its former level of efficiency and service, to say nothing of the desirability of expansion to meet the extraordinary opportunities which the post-war conditions in the Near East had created. It was clear that from \$200,000 to \$300,000 additional endowment was required to meet the situation. Plans were accordingly formulated to this end, and an application for aid was made to the Carnegie Corporation in the summer of 1920. This application was ably reinforced by Dr. Edward Robinson, Director of the Metropolitan Museum of Art, who seized the occasion of a visit to Greece in the spring of 1921 to study the work of the School at close range and to formulate independently an estimate of its immediate needs. Already intimately acquainted with the internal affairs of the School as a member of the Managing Committee, and exceptionally equipped to appraise its achievements in the fields of archaeology



The Gennadeion: Study of the Principal Elevation.

and art, Dr. Robinson addressed to Dr. Pritchett, President of the Carnegie Corporation, an earnest plea for the assistance for which application had been made. In May, 1921, the Corporation appropriated \$100,000 for endowment on condition that an additional \$150,000 should be raised by July, 1925, and further agreed to pay \$5,000 a year for current expenses while the new endowment was being raised. It is gratifying to be able to say that of the \$150,000 to be raised by the School nearly two-thirds have already been subscribed. Moreover, in the spring of 1922 Mr. John D. Rockefeller, Jr., after a careful examination into the history, management, and needs of the School, subscribed \$100,000 toward its endowment, on the sole condition that the campaign already in progress should be successfully completed by June, 1924; and he also in the meantime agreed to contribute \$5,000 a year for current expenses. The Trustees and Managing Committee are therefore charged with the task of raising the balance of the fund of \$150,000 in less than two years, at which time \$200,000

additional becomes available—or a total addition to endowment of \$350,000.

#### THE GENNADIUS LIBRARY

Meanwhile the School has received a remarkable gift which would certainly not have been offered if the past of the School had not been such as to inspire the donor with confidence in its future. Dr. Joannes Gennadius, dean of the diplomatic service of Greece, and for forty years the Greek Minister at the court of St. James, has presented his magnificent library, now in his residence in London, to the American School at Athens, on condition that it shall be properly housed, cared for and made accessible to the scholars of the world who resort to Athens for study.

The Library consists of between 45,000 and 50,000 items, all relating to Greece, ancient, Byzantine, and modern—its history, geography, language, literature, art, archaeology, Early Christianity, etc. It comprises a superb set of the first editions of the Greek classics; all the first and rarest editions of the Greek Scriptures, of the Greek Fathers, and of the Greek Liturgies; a full collection of works on travel in

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Greece and the Levant; some 800 historic and artistic bindings of the sixteenth, seventeenth, and eighteenth centuries; a large number of manuscripts; and innumerable rare or unique single items. But its chief value is in its completeness as a collection—"uniquely comprehensive within its field" says Mr. Herbert Putnam, the Librarian of Congress, who has examined the catalogue and appraised the library, and "without its equal in the world" according to a distinguished Englishman who is intimately acquainted with the collection.

During the forty years of its existence the American School at Athens has accumulated, through modest buying and through gifts, a working library of some 10,000 volumes. Now at a single stroke it comes into the possession of what is probably the richest and most complete collection in the world within its field, which is precisely the field which the School was established to cover, and of a value approaching that of the present total property and endowment of the School. It is an amazing piece of good fortune, and an act of unexampled generosity on the part of the distinguished Hellene who made the gift. Through this gift the School at once enters upon a period of increased usefulness to classical studies.<sup>1</sup>

The readers of this journal have already been informed of the generous grant of \$200,000 made by the Carnegie Corporation to enable the School to comply with the conditions of the gift of the Gennadius Library. The Greek

government has also done its part in the same spirit of generous rivalry by recommending to Parliament an act of expropriation by which a magnificent plot of land in close proximity to the present property of the School has become available, without cost to the School, for the Gennadeion. The announcement of the gifts of Dr. Gennadius and the Carnegie Corporation made to Parliament by the Greek Minister of Education, when he introduced the bill and read the letter of Mr. Elihu Root to the Prime Minister, evoked great enthusiasm; and on all sides the international significance of this new foundation is recognized. Plans for the building and for the development of the grounds are already well advanced; within a short time the Gennadeion will be open for the use of scholars of all nations; and a new era both for the American School and for the studies fostered by it will begin.

### THE DIRECTORATE

In the earliest years of the School, the Director was simply an American college professor who had obtained leave of absence from his regular work for the purpose of serving the School. So Professor Goodwin, of Harvard, was succeeded by Professor Packard, of Yale, who was, however, overcome by illness soon after he reached Athens; the management of the School was taken over by Dr. Sterrett, who had been a member of the School in the preceding year. In 1884-1885 Wesleyan University furnished the Director, Professor Van Benschoten, who was followed in succession by Professor F. D. Allen, of Harvard, Professor D'Ooge, of the University of Michigan, and Professor Merriam, of Columbia. Each of these was an admirable scholar, but each had to begin as a new man at

<sup>1</sup> For a full description of the Gennadius Library, together with the correspondence which passed between Mr. Gennadius and Professor Mitchell Carroll, Secretary of the Washington Archaeological Society, Professor Capps, Chairman of the Managing Committee, and Justice Loring, President of the Trustees of the School, the reader is referred to the May number of *ART AND ARCHAEOLOGY*; to the "American School at Athens Notes" in the June and July numbers for the announcement of the gift of the building by the Carnegie Corporation; and to these "Notes" in the September and October numbers for the correspondence between Mr. Elihu Root of the Carnegie Corporation and the Prime Minister of Greece relative to the whole remarkable transaction.

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Athens, with no knowledge of local conditions and often with little or no information concerning recent discoveries or problems in archaeology. There was no continuity in the work of the School. Foreign scholars, though they admired the enterprise and the intelligence of the Americans at Athens, were perplexed by the instability and apparent lack of serious purpose in the management, and the friends of the School in America were convinced that the time had come for the appointment of a Director who should hold office for a term of years. The position of Director was accordingly offered to Dr. Charles Waldstein (now Sir Charles Walston), a graduate of Columbia University and at the time Reader in Classical Archaeology in Cambridge University, England. Combining the two positions and spending a few months each year in Greece, he retained the Directorship for four years. The first permanent resident Director was Professor Frank Bigelow Tarbell, then of Harvard, who however resigned after one year to accept a position in the new University of Chicago. In 1893 Professor Rufus B. Richardson of Dartmouth became Director, and to him is due the present organization of the work of the School. He was succeeded in 1903 by Dr. Theodore Woolsey Heermance, of Yale, whose untimely death in 1904 cut off a brilliant career. In 1905 the present incumbent, Dr. Bert Hodge Hill, then of the Boston Museum of Art, was appointed.

### THE ANNUAL PROFESSORSHIP

In the earliest days of the School the staff at Athens consisted only of the Director, who was a professor in an American college and remained at Athens only eight months. As a permanent arrangement this was obviously

unsatisfactory, and a Director with more lasting tenure was appointed, as has been said, in 1888. But in the previous years it had been clear that the annual directorate was not without its advantages. Athens is far from America, and the friends of the School are not always in touch with foreign lands. The students, being for the most part young and without wide reputation, could not speak with authority in the United States, but the Director, a man of some note among scholars and the friends of scholarship, could make his voice heard in public and in private among those whose interest in the School was of vital importance to its welfare. That the Director himself, by spending eight months in Greece, gained a livelier appreciation of the surroundings of the ancient Greeks, thereby adding new life to his teaching after his return, was also a fact worth considering. Moreover, the presence of an older man, an American whose permanent work was in America and who was familiar with American conditions, tended to keep the students, especially those who had been studying in Europe before coming to the School at Athens, from forgetting that their own future work would be in the United States, and from overlooking the difference between European conditions and those in their own country. These advantages were clearly worth retaining, and therefore there has been, since the first appointment of a more permanent Director, an Annual Professor whose title has varied more or less, but who has usually, in view of the fact that he is Professor of Greek in America, been called Professor of the Greek Language and Literature. The existing arrangement secures for the School the necessary continuity of effort and policy through the permanent

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Director and close touch with institutions and conditions at home through the Annual Professor.

### OTHER OFFICERS

As time went on it became constantly more evident that the Director, even with the help of the Annual Professor, could not be expected to oversee the care of the grounds, to engage servants and purchase supplies, to carry on negotiations with the Greek government and with private persons preparatory to excavations, to conduct excavations, to entertain distinguished guests, Americans and others, to attend court functions, and also to help the students in their work and do original work of his own. It was obvious that he must have assistance, and therefore, for nearly twenty years, there has been a Secretary or, as at present, an Assistant Director, who has always been a past member of the School, to relieve the Director of some of his burdens. The present incumbent of this office is Dr. Carl W. Blegen, whose researches in prehistoric archaeology have brought him well-merited distinction.

For many years the subject of Greek Architecture has engaged the attention of some of the best minds among both staff and students, the opportunities for research in this field being unusually attractive both to the practicing architect and to the archaeologist; and many of the most brilliant discoveries and studies which the members of the School have produced lie in this field. In recognition of the importance of this subject for the School a Fellowship in Architecture was established in 1903, supported at first by a grant from the Carnegie Institution, and later taken into the regular budget. If the incumbent remains for a period of years he becomes a regular member of the staff

with a title appropriate to his rank. Dr. Leicester B. Holland, formerly of the School of Architecture of the University of Pennsylvania, now holds this position, having succeeded Mr. William Bell Dinsmoor, now of Columbia University. There is a special fund for the purchase of books in Architecture, contributed by friends of Dr. Heermance and bearing his name.

### THE STUDENTS

With very few exceptions the students are graduates of American colleges, and indeed many have been working for a year or more as graduate students before coming to Athens. Until the year 1886-1887 no student had been a member of the School more than one year, but at that time two students remained to continue the work they had begun the year before, and since that time the usual period of membership has been two years, though many still go away after one year at Athens, and others stay for three years. There is, then, no prescribed term of residence, except that a student who wishes to be rated as a regular member must study in Greece or Greek lands for ten months. The only further requirement is that "every regular member of the School shall pursue some definite subject of study or research in Classical Literature, Art, or Antiquities, and shall present a paper embodying the results of some important part of his year's work, unless for special reasons he is excused from these obligations by the Director."

Since 1895 the nucleus of the student body has been formed by the two Fellows selected annually by competitive examination, except that a Fellow in residence may be reappointed without examination on recommendation of the Director and the Annual Professor.

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Since 1903, as stated above, the subject of Architecture has been represented either by a Fellow or by a more advanced scholar, who devotes himself chiefly to research, but may be called upon to give instruction, and prepares for publication the drawings of the buildings and sites uncovered by the School's excavations. Of the remaining students many are the holders of fellowships or travelling scholarships from institutions in the United States. No distinction is made between men and women, except that as yet the School is unable to offer lodging to women. This is a condition that should speedily be remedied by the erection of the women's hostel already referred to; for although Athens is a congenial place of residence for women of American social traditions and training, and they can move about freely in city or country without the embarrassment they would encounter in Italy or France, for example, yet the absence of a home for them near the School, which is at some distance from the hotels and restaurants of the city, constitutes a distinct disadvantage for them as compared with the men.

For such a body of students regular lessons like those of undergraduates are needless and would be absurd. Nevertheless it has been found well worth while to conduct courses of lectures and readings at which all members of the School are ordinarily expected to be present. The Director and Assistant Director lecture at some ancient ruin, or in a museum, or on some subject connected with the topography of Athens; the Annual Professor expounds some classical author or speaks on some subject connected with ancient literature, history, or antiquities, and the students read papers embodying the results of researches of their own. In addition the School holds each year a

few public meetings to which scholars and others who may be interested are invited, and the members of the American School are, in turn, welcomed at public meetings held by the schools of other nations. But most of the time of the students is spent in their own studies and investigations, at any rate after their first year of residence.

Such are the activities of the School at Athens during the winter, when the weather makes long trips undesirable. Yet even in winter short trips are of frequent occurrence. A Fiat camion and a Ford car, the School's inheritance from the American Red Cross, bring any part of Attica within easy distance for either large or small parties: Eleusis can be reached in an hour, or Deceleia, or Acharnae, or Salamis, or Cephissia; Phyle, Marathon, Sunium, Aegosthena, Dionysio, Rhamnus, Vari, Braurium, the Amphiaræum at Oropus, can be comfortably visited in a day; and Aegina and other sites adjacent to Attica are also within easy range by car or steamer. Longer trips are, however, generally reserved for the autumn and the spring. In the autumn the School as a whole travels through the Peloponnese, visiting Corinth, Mycenae, Tiryns, Argos, Epidaurus, Sparta, Olympia, and other places, stopping in each place for hours or days, as may seem best. In the autumn, too, a trip is made to Delphi, Thebes, Chalcis, Thermopylae, the monasteries of Meteora, and other places in central and northern Greece. The automobile has immensely increased the facility of travel and the number of sites visited each year, since it is quite practicable to leave Athens in the early morning and sleep at Delphi or Sparta. And the Greek government generously allows our students half fare on the state railroads. In preparation for these

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journeys the students are expected to read the descriptions of the various sites given by ancient and modern writers and to study the reports of excavations. Each student is expected to devote special attention to some one or two places or some particular monuments, so that he can discuss them on the spot for the benefit of the rest.

This system of student lectures is often fruitful of discovery. Thus at Delphi, where the French excavators have always welcomed our assistance in the solution of their problems, Washburn discovered the earlier erased inscription on the base of the famous bronze charioteer. And so again Miss Gardiner (Mrs. Whitmore) and K. K. Smith investigated the monument of Daochos the Thessalian, that containing the statue of Agias by Lysippus; and they found that the group as hitherto restored included a mediocre Roman statue, for which must be substituted a beautiful Lysippean figure recomposed from a head exhibited in the Museum, a leg lying in the basement storehouse, and a torso opportunely found at that moment in a modern stone wall. And once more, on a School trip, Dinsmoor made the observations which gave the solution of the Cnidian-Siphnian problem, for which the French School offered their *Bulletin* as the medium of publication.

For the Cnidian-Siphnian controversy was in full swing in 1909, when Dinsmoor visited Delphi. The marble treasury, containing the predecessors of the Maidens of the Erechtheum, had been reproduced in two slightly variant full size plaster models, one in the Delphi Museum, the other at the head of the grand stairway of the Louvre near the Victory of Samothrace; and it had, after considerable hesitation, been almost unanimously regarded as Cni-

dian. But the famous sculptured frieze, which so inspired the sculptor Paul Manship, was at that very moment being subdivided and assigned to three different buildings. In comparing the marble architectural fragments with the model, Dinsmoor found certain discrepancies of measurement which invalidated the plaster restoration; a careful inventory of all the marble fragments showed that they were of three distinct types, of which one could be identified as Cnidian on the evidence of inscriptions, the second could be referred to a foundation attributed with probability to Massilia, leaving for the third, which agreed best with the allusion in Herodotus, the name Siphnian. Each of these three buildings was recomposed on paper, from foundation to roof. The famous frieze, however, proved to be a unit, and it was not Cnidian; its members fitted, stone by stone, the Siphnian architrave and cornice. The next problem, that of providing foundations for the Cnidian and Siphnian treasuries, led to an investigation of all the treasuries at Delphi; the Siphnian foundation was clearly that always associated with the plaster model, but the Cnidians now received a rapidly disintegrating, and hitherto nameless, foundation of yellow limestone, which after this identification acquired a protecting tile roof. Incidental to this investigation was the location of the two successive treasuries of Syracuse, and the attribution to the older one of the peculiar oblong sculptured metopes hitherto assigned to Sicyon.

In the spring, when the students have learned enough modern Greek to enable them to travel easily, the trips are, as a rule, not organized by the School, but students travel in continental Greece, visiting places not

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reached in the autumn or revisiting those which are of special interest; or they study the wonderful remains of pre-Hellenic civilization in Crete; or they cruise among the islands of the Aegean, inspecting the excavations at Delos carried on by the French School, the great collection of early vases in the museum at Mykonos, the ruins of Phylakopi excavated on the island of Melos by the British School, and the relics of ancient civilization at Thera which were unearthed by the German Hiller von Gärtringen; or they go to Asia Minor, where the cities of Pergamon, Priene, and Miletus have been excavated by the Germans, Ephesus by the Austrians (after Englishmen had excavated the great temple of Artemis), Assos by Americans, and Troy by Schliemann and Dörpfeld. The important American excavations at Sardis are still in progress and offer the traveling student much interesting material for study, and at Colophon work has been begun. The trip to Asia Minor is often combined with a visit to Constantinople, where the student of ancient art finds abundance of material in the rich museum, the student of less remote antiquity can devote himself to Byzantine architecture as seen in St. Sophia and other buildings, and to Byzantine painting, decorative sculpture, and mosaics, the last most remarkably represented in the church—now mosque—of Kahrie Djami; and the student of mankind is almost bewildered by the mingled mass of different types thronging the narrow streets and the great Galata bridge. Some students have extended their journey to Egypt, whence the ancients believed many elements of civilization

came to Hellas and where Hellenistic culture had one of its most important centres. Travel such as this gives the student a broader outlook on history and helps him to connect antiquity with modern times.

During the European War the regular work of the School was necessarily suspended, it being impossible to send either students or professors to Greece in 1916, 1917, 1918, and 1919. The services of Mr. Hill and Mr. Blegen were at first placed at the disposal of the American Legation; and on the organization in 1918 of the American Red Cross Commission to Greece, the property of the School and the resident staff were by formal act of the Trustees made available for its work. The School building became the residence of the higher officers of the Commission, and Mr. Hill and Mr. Blegen were detailed to various important duties. The chief of the commission appointed by President Wilson was the Chairman of the School's Managing Committee, Professor Capps, and his successor in 1919-20 was Professor H. B. Dewing, who was appointed for that year the Annual Professor. Mr. Blegen also rendered important services to the Paris Peace Commission in connection with the intricate problems of boundaries and race distribution, and Mr. Hill in helping to put down the typhus epidemic in Macedonia; while Mr. Dinsmoor received a commission and was assigned to the staff of the American Military Attaché at Athens. Altogether the School did its part in the war creditably. To commemorate the hospitality of the School the members of the Red Cross Commission contributed a special fund for excavations.

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### EXCAVATIONS OF CLASSIC SITES

It is chiefly in the spring and autumn that excavations are carried on, though sometimes work begun in spring is continued in summer, and sometimes the work of the autumn does not come to an end until the rainy season has set in; but, generally speaking, the Director and Assistant Director are in Athens during the winter to conduct the winter work of the School, and in the summer months the students are travelling or studying outside of Greece.

In the paragraph of the Regulations already quoted, we find, as parts of the object of the School, "to aid original research in these subjects (Classical Literature, Art, and Antiquities); and to coöperate with the Archaeological Institute of America . . . in conducting the exploration and excavation of classic sites." This sounds as if the founders of the School hardly expected it to conduct excavations independently of the Institute; but even in the first year of the School it became evident that "original research in these subjects" might call for excavation. Mr. Crow, who was investigating the Pnyx, the great assembling place of the Athenians, had to obtain the permission of the Ephor of Antiquities and dig some rather short and shallow trenches to settle questions relating to ancient foundations.

Excavation is, then, sometimes a necessary part of research—of an investigation which has not the discovery of new material as its chief end; but excavation of new sites primarily for the purpose of finding new material is also a legitimate part of the work of the School, not only as a part of the prosecution of original research, but also because excavation offers the students of the School a kind of training which

cannot be obtained in any other way and which is invaluable to any one who is called upon to weigh archaeological evidence. Excavations have, therefore, been carried on by the School, not only because they increase and maintain its reputation alongside of the other foreign schools at Athens, but partly because they constitute an important division of archaeological research and partly also because the School, as a teaching institution, must give its students the opportunity to watch, take part in, and, in some measure, direct them.

The first real excavation undertaken by the School was at Thoricus, in Attica. It was known that a theatre existed here in ancient times, and in the spring of 1886 work was begun, under the direction of Professor F. D. Allen, in the hope of finding some evidence either for or against the existence of a raised stage in the Greek theatre of classical times; for the belief, founded on a somewhat perplexing passage in Vitruvius, that the Greek actors performed on a high stage, had recently been called in question by Professor Dörpfeld of the German Institute. The excavations at Thoricus, though they failed to settle the question of the stage—concerning which scholars are even now not all agreed—nevertheless laid bare remains of the most primitive type of Greek theatre (pp. 185, 186) known to us—a building without back-scene or stage buildings of any kind—and therefore of considerable importance for the history of the theatre.

In the following year (1887) the theatre at Sicyon (pp. 187, 188), not far from Corinth, was excavated. Here the foundations showed that the original "stage-building" had been altered; a



Thoricus: Theatre.

*German Institute Photograph.*

watercourse, similar to that in the theatre of Dionysus at Athens, encircled the orchestra, and an underground passage (further examined in 1891) leading from the orchestra to a point behind the front wall of the "stage-building," may have provided a means for the sudden appearance and disappearance of actors. A similar passage was found in the theatre at Eretria, a building of most unusual type in several respects (p. 189). Excavations were carried on there by the School in 1891-1892 and 1894-1895. The theatre at Corinth was also investigated by the School, and a fifth theatre,—that at Oeniadae in western Acarnania—was excavated in 1900 and 1901. These theatres were not among

the great ones of ancient times, but they each added something important to our knowledge of the conditions of the ancient drama and, taken in conjunction with researches simultaneously carried on by American scholars from the point of view of the extant dramas, made the American contribution to the stage question next to that of the Germans in originality and comprehensiveness. Mention should be made of some interesting sculptures found at Sicyon, and of the foundations of a temple and a large gymnasium, some tombs, and also much jewelry and many fine specimens of white lecythi discovered at Eretria.

Of peculiar interest to students of the drama, though in this case no



Thoricus: Theatre.

*German Institute Photograph.*

theatre was excavated, was the excavation undertaken in 1886 at a place on the side of Mt. Pentelicus called Dionyso. Here were the deserted ruins of a church, the apse of which was so built as to utilize an ancient semi-circular structure which, from an inscription still preserved on its face, was seen to be a choragic monument dedicated to Dionysus by Cephisius, son of Timarchus, of Icaria. Now ancient tradition has it that the cult of Dionysus, the patron deity of the drama, was first introduced into Attica at Icaria and also that Icaria was the birthplace of Thespis, to whom the invention of drama is attributed. The suggestion that Dionyso was the site of ancient Icaria had already been made but as yet it was only a suggestion.

Professor Merriam, Director of the School, hoped that excavations would establish a proof, and in this he was not disappointed. Foundations of several buildings, including a temple, were uncovered, and many fragments of sculpture came to light. Among these were parts of a head of Dionysus of fine archaic art, a colossal archaic torso, three other torsoes, a relief showing Apollo seated on the omphalos with Leto and Artemis behind him, and a fine archaic stele closely resembling the well-known stele of Aristion in the National Museum at Athens. Inscriptions were found which prove conclusively that Dionyso is the site of Icaria and also that the cult of Dionysus was especially prominent there. The excavations, then, established the site



Sicyon: Theatre.

*German Institute Photograph.*

of the Attic deme of Icaria, confirmed the traditions relative to the cult of Dionysus and the early steps in the development of the drama, and also brought to light some sculptures which are interesting purely as works of art. These results were extremely gratifying, especially in view of the brief duration (six weeks) and small cost (\$288.13) of the undertaking.

In the years immediately following the success at Dionyso, excavations were undertaken by the School at Stamata (1889), which was proved to be the site of the Attic deme Plotheia, Anthedon (1889), Thisbe (1889), Plataea (1889, 1891), Eretria (1891-92, 1894-95), Sparta, Amyclae, and Phlius (1892). The chief results of the work

at Eretria have already been mentioned. At all the other sites results of some interest were obtained, and the students gained valuable experience.

But the first excavations on a large scale were those carried on with the coöperation of the Archaeological Institute of America in the four years 1892-1895 at the Argive Heraeum. This was one of the most important sanctuaries of ancient Greece. It was the chief temple of Hera, the patron goddess of Argos; the years of its priestesses were cited, like those of the Olympic games or the Athenian archons, for the fixing of dates; and the statue of gold and ivory within the temple of the fifth century B. C. was the work of Polycleitus, one of the



Sicyon: Theatre.

*German Institute Photograph.*

greatest sculptors of that great period. The date of that temple, and therefore of the statue, is fixed with some approach to accuracy, for it is known that the earlier temple was burned in 424 B. C. and that a new building, designed by an Argive architect, Eupolemus, was erected shortly after. The site, on a spur of Mt. Euboea that projects into the plain some four miles from the ancient city of Argos, had been previously explored, and the remains of ancient walls there were plainly to be seen. There was every reason to believe that excavations at the Heraeum would have good results, though just what would be discovered no one could tell.

In the end all reasonable expectations were fulfilled. The foundations of two

temples, one very archaic, the other of the fifth century B. C., were laid bare, round about them were remains of eight other monumental structures ranging in date from early in the sixth century B. C. down to Roman times. Among the sculptures discovered are pieces of the greatest value for the understanding of Greek art of the fifth century. The pottery offers an unbroken sequence from the early Bronze Age down through the classic period, showing that the site was sacred long before the traditional time of the Trojan War, and representing all the changes in ceramic technique and fashion which followed each other through the centuries. The bronzes, which number almost 6,000 pieces, and also



Eretria: Theatre.

German Institute Photograph.

the numerous terra-cotta figures, belong chiefly, though not entirely, to the period when archaic Greek art was slowly emerging from the darkness that followed the destruction of the pre-Hellenic civilization.

The results of these excavations have been fully published (see below) and cannot be described in detail here. Of the temple of the fifth century it will suffice to say that although only its foundations (p. 191), were found *in situ*, so many architectural fragments were discovered that the entire building could be restored in Mr. Tilton's drawing (p. 192). The sculptures discovered are of great interest. The great statue by Polycleitus, being made of gold and ivory, was of course de-

stroyed centuries ago for the sake of its valuable materials, but fragments of the decorative marble sculptures of the temple were found in considerable number. The most striking of these—for it is probably from one of the pediments, though positive proof of this is impossible—is a very well preserved marble head, to which Dr. Waldstein, Director of the School and of the excavations, gave the name of "Hera" (Frontispiece). It is the head of a young woman, finely wrought and filled with the dignity and self restraint characteristic of the best Greek sculpture. Fragments of relief, evidently from the metopes of the temple (p. 193), show remarkable technical skill, great care in execution, and considerable originality



Eretria: Gymnasium.

of conception. Now the temple to which these sculptures belonged was built soon after 524 B. C., when Polycleitus, who made the great statue within the temple, was the chief of the Argive school of sculpture. Of all his works, which were chiefly of bronze, not one is now known to exist in the original, though copies made in Roman times, and for the most part done in marble, give us a fair idea of the general appearance of some of the more famous among them. What more natural than to assume that the sculptors who decorated this temple were the pupils and assistants of the great master to whom his, and their, fellow citizens had entrusted the creation of the priceless statue within? If that assumption is

justified, these fragments help us to appreciate the art of Polycleitus and his school, and they prove that there was in that art far more life and movement, variety and invention, than is seen in the Roman copies from which our knowledge of the great Argive sculptor has hitherto been derived.

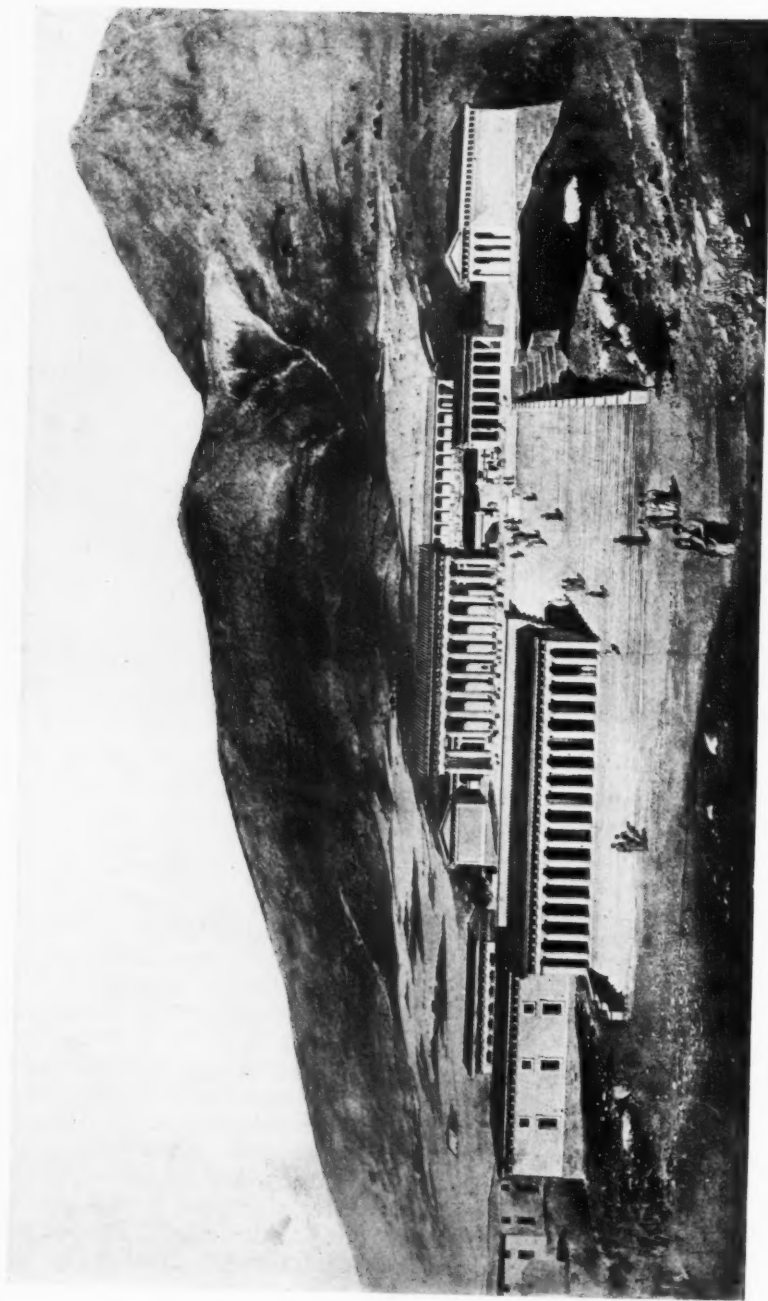
While the work at the Heraeum was in progress, trial excavations were conducted, in 1893, at Koutsopodi, the site of the ancient deme of Oenoe, but without notable result, and in 1895 the site called Koukounari was investigated. Here a sacrificial calendar of the fourth century B. C. was found, prescribing the offerings to be brought at certain times and the prices to be paid for them, but there were no further



Argive Heraeum: Foundations of the Temple.

interesting results. In the following year the excavations at Corinth were begun, which have continued, with interruptions due to wars and other causes, until the present time, and are not yet completed. The funds for these excavations were given in great part by Mrs. J. Montgomery Sears. But before describing these, it will be well to mention briefly the minor excavations of classic sites after 1895. At Oeniadae, in Acarnania, excavations carried on in 1901 at the expense of two members of the School, Dr. L. L. Forman and Mr. J. Montgomery Sears, Jr., laid bare a theatre, a bath, and some ship-houses. In the same year the cave at Vari, in Attica, was cleared at the suggestion of Mr. Weller and at the expense of students of the School, and

in it were found reliefs, inscriptions, numerous small objects of terra-cotta, fragments of pottery, coins, and great quantities of lamps of various periods. At Halae, where Miss Walker and Miss Goldman conducted excavations at their own expense in 1911 and 1912, valuable vases and terra-cottas and some important inscriptions were found. In 1911, too, excavations were undertaken with a fund contributed by the University of Chicago at the request of Professor Buck to discover the site of the ancient Opus. Trials were made at several places, various foundations and small objects were found, and the site of Opus was determined. The excavations at Corinth are so important that they are treated separately in the following pages.



Argive Heraeum: Restoration in Perspective.

*By Edward L. Tilton.*



Head of Youth from a Metope of the Argive Heraeum.

### THE EXCAVATIONS AT CORINTH

The greatest enterprise in excavation undertaken by the School is at Corinth. Situated at the end of the isthmus which connects the Peloponnese with central Greece, protected and strengthened by the steep and lofty Acrocorinthus, which was, before the invention of heavy artillery, an almost impregnable citadel (p.196), and profiting by the commerce of the Saronic Gulf as well as of the gulf to which its own name was given, Corinth was one of the greatest and richest cities of ancient Greece. Destroyed by the Roman Mummius in 146 B. C., it was restored somewhat later and continued to be for centuries a place of great importance.

Before the excavations the only visible monument that marked the

site of the ancient city was the great Doric temple (p. 219), of very early, though unknown, date. It was not even known what god was worshiped there. The existence of this temple proved that the destruction of 146 B. C. was not absolutely complete, and that there was some hope of finding remains dating from the great days of Greece, but it was, of course, probable that most of the buildings and minor monuments discovered would belong to later times. This has proved to be the case, though, as will be seen, the remains of the classical Greek period are peculiarly interesting.

It was a great undertaking to lay bare the area of a large city, and no little time had to be devoted to tentative and exploratory digging. The



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work has been carried on for seventeen seasons in the period from 1896 to 1916 and is still incomplete. A chronological record of it would be difficult to understand, unless it were made unduly long, and therefore what follows is a description of results, arranged in topographical, rather than chronological, order.

The city lay at the north foot of the Acrocorinthus upon two extensive natural terraces, 50 to 100 metres above sea level and 30 to 80 metres above the fertile plain that stretches along the Corinthian Gulf, here only two kilometers distant. Where the upper of the two terraces formed a deep bay in the side of the hill and the ascent from the lower was thus most gradual, was the Agora, about which centered the commercial and political life of the ancient city.

The excavations have been concerned almost exclusively with the Agora itself and the districts immediately north and northwest of it, in dependence upon the description of Pausanias, the traveller of the second century A. D., by whom most of the objects judged worthy of mention were seen about the Agora and along roads leading from it toward Lechaëum, one of the two harbors of Corinth, to the north, and toward Sicyon, its nearest neighbor and rival, to the northwest.

The area excavated lies in the midst of the group of hamlets which constitute the modern village of Old Corinth. From its central square, marked by a venerable plane tree of great size, we turn towards Acrocorinthus, pass the modest Museum of antiquities (at present an overcrowded storehouse) and after a minute's walk reach a broad street with raised sidewalks, paved with slabs of hard pinkish-white limestone taken from an Acrocorinthian

quarry (p. 196). The smooth gutter seen at the inner edge of the sidewalks received water from the eaves of colonnades that once lined the street. Of these, the foundations and much of the stylobate remain in place, with (on the west side of the road) a few column-bases.

This street is mentioned by Pausanias as the Straight Road toward Lechaëum. It has been traced more than 300 metres northward, in numerous pits sunk in the gardens below Plane Tree Square; and doubtless extended actually to the edge of the terrace that overlooks the plain. The road did not have one continuous slope, but was interrupted by steps at intervals where the slope was steepest. It was thus, of course, closed to wheel traffic, as is testified also by the complete absence of ruts in the pavement.

At the head of the street, and extending quite across it, are two paved platforms: the lower is four steps above the road; the second, 2.10 m. higher, was approached by stairs enclosed between *podia* projecting from it. (Earlier stairs, also, which reached the whole width of the street, may be seen within the western *podium*.) The steps, where not destroyed, are now largely concealed by a stairway-ramp constructed in the middle ages to make the approach easier, and, probably, to dispose of awkward masses of material from ruined Roman buildings.

Beyond the upper platform rose the Propylaea, the gateway into the Agora. In its first form it was a long shallow building, of five arches, the central one widest and deepest, constructed of *poros*—the soft smooth-grained travertine yielded by many quarries in Corinthia and exported largely in antiquity, as at the present day. This portal was replaced in the first century A. D. by a regular triumphal arch in marble,



*Photograph by F. Boissonas & Co., Geneva.*

Corinth: Lechaean Road and Steps to Propylaea from north; at right, Shops and Foundations of Basilica; Acrocorinthus in Background.

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which in turn later suffered one or two remodellings. Of the marble-faced arches only the foundations and a part of the core of the piers remain; of the *poros* gateway a little of the actual façade may be observed. When Pausanias saw the arch, in the second century A. D., it was surmounted by two gilded bronze quadrigae: of Helios, the Sun, and of his son Phaethon. When the stranger coming from Lechaëum looked for the first time up this stately street, lined with marble porticoes, to the great arch with its gleaming chariots and the grey acropolis towering beyond, the impression must have been memorable indeed—even upon the visitor who had come solely to waste his substance in the expensive pleasures of luxurious Corinth.

The more western of the colonnades that flanked the upper end of Lechaëum Road served as portico to a row of sixteen small shops of excellent, solid construction. They were open at the front nearly their whole width, to admit light and allow display of wares for sale, quite like the stalls alongside old streets in this part of the world today. Their heavy rear wall supported a filling of earth and débris which brought the level behind even with their top.

Upon the terrace so formed, and as an upper story above the shops, was built a Basilica, 23 metres wide and 65 metres long, having its main hall of the usual form, 46 metres in length, with three rooms at either end. The central of these at the north—unfortunately completely destroyed—was presumably the Tribunal; one, at least, of the rooms at the south was a vestibule, the entrance to the building having been at that end, where alone the grade permitted.

This Basilica, which was wholly of *poros*, dates from a time toward the end

of the first century B. C., not very long, probably, after Corinth was made the capital of the Roman Province of Achaia in 27 B. C. It was afterwards enlarged, to 70 m. by 27.50 m., and completely rebuilt in marble, with the plan somewhat changed. The floor level was raised about half a metre; the end rooms were eliminated; and the great hall had now, between the aisles and the central area, colonnades of sixteen by four columns instead of the eleven by four of the original building; the shops received vaulted ceilings of concrete; and the marble colonnade of the Corinthian order, of which we have already noted the stylobate and certain bases *in situ*, replaced their original portico beside the Lechaëum Road.

Little enough remains of the superstructure of either basilica—of the earlier, one Ionic column base and two sub-bases at the south end of the hall; of the later, a part of the west wall where it was cut in the rock of the hill of the old Temple of Apollo. The foundations, however, of both are distinctly imposing as they stand.

Underneath the Basilica, at a depth of about 4 metres, are considerable remains of a Greek Market, dating from around the end of the fifth century B. C., which is designated on the plan as the "North Building." The site for it was cut out of the rock and clay of the east end of the Temple Hill, the foundations being generally a single course of stone set into the clay. The south end of the building was a Doric stoa, of which one drum of the westernmost column is still *in situ*, with a piece of stylobate.

This colonnade was 4.5 m. deep, separated by a light partition from the main hall of the building, which extends thence 40.5 m. northward. Ranged down the length of it was a

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row of thirteen columns at intervals of three metres. For nine of them the square bases remain in place, and on the southernmost of these an unfluted column-drum, 0.625 m. in diameter, 0.25 m. high. This base and drum, untouched by the builders of the first Basilica, was cut in half when foundations were laid for the second Basilica, and then ages later halved again when the Byzantine owner of Shop VIII dug him a cellar behind his shop. The western wall of the hall, parallel with the axial line of the columns and 3.25 m. distant, was in its southern part simply a facing for the scarped rock, but for the remaining 35 m. of its length was the front wall of a space 2.8 m. to 3.6 m. wide, which seems to have been divided into ten shops or stalls. The face of the wall is broken into panels by narrow pilasters of very slight projection, two panels between every pair of doors. The panelled wall was carried up only 1.35 m., while the pilasters went on as doorposts and pillars to architraves (or lintels) that supported the ceiling. The upper block of each panel was hewn out into a rectangular tank and this waterproofed with a lining of cement. Thus each little shop had at either side of its door a sort of display window, with a tank (or box—for the waterproofing *may* have been intended to keep moisture out) containing something which the imagination of the reader must supply—perhaps live sweet-water fishes, or ferns and flowering plants, or olive oil, or possibly nuts, or dried fruits.

Of the eastern part, the front, of this building we can know nothing positively, since the Roman shops that look out on the Lechaëum Road occupy the same area at a level about one metre deeper. It may be guessed, however, that the colonnade of which

we have a little at the south extended also along the east side of the building, and perhaps across the north end. Architrave blocks found well preserved in foundations of the Basilica show that the columns, whatever their number, were spaced at 2.12 m. Since this can have no relation to the spacing of the interior columns, it is probable that there was a wall separating the main hall from the eastern portico, as from the southern.

This structure doubtless shared the fate of the other buildings of Hellenic Corinth when, in 146 B. C., the Roman Consul Mummius destroyed the city in punishment for its conspicuous share in the final hopeless struggle of the Achaean League against the power of Rome. Toward the end of the century of desolation that followed, or immediately after the re-founding of the city, what then remained of the old Market above the metre of earth that had accumulated upon its floor was occupied in a humble way, as is witnessed by a few slight walls, two areas of flagging, and a stone tub, buried when the Basilica was built.

On the opposite side of the Lechaëum Road, partly underneath, partly behind, the colonnade bordering the street, is the foundation, of most excellent workmanship, of a small Greek Temple dating apparently from the fifth century B. C. Its plan shows a square cella and a pronaos which would most naturally be restored as *distyle in antis*. On the top of the foundation accurate setting lines indicate the exact position of the superstructure. But of this not a stone remains. For some reason the temple was removed even during Greek times, and there was constructed where the cella had been a sort of baldachin having four square pillars, the two western joined by a

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light wall. Within stood doubtless the image of a god, or some sacred object. Judging by the profile of the bases of the pillars, which alone remain, the baldachin is to be referred to about the third century B. C.

At the front of the temple there is a Greek pavement of large smooth pebbles set in cement, with a narrow frame of cut stone. To right and left of the temple are foundations of pedestals; at the south a square stone water basin of high antiquity, to the north parts of an extensive floor of waterproof cement. In the earth hereabouts are potsherds of all classical periods. A little to the northwest two groups of perfectly preserved geometric vases were found (Published *A. J. A.* IX, 411-421, Pls. XI-XVI); and here also, in a late wall, was found an excellent marble copy of a noble statue, doubtless of a goddess, from the fifth century B. C.

The temple and shrine are believed probably to have been sacred to Apollo for the reason that a much later court surrounded with colonnades, lying above and immediately to the east of the temple, is known from the description of Pausanias to have been the "Peribolos" of Apollo.

The Peribolos is a quadrangular court measuring 29 metres (north to south) by 22 metres, enclosed on all sides by a marble Ionic colonnade slightly under 5 m. deep. The stylobate is of hard pinkish limestone like that of the pavement of the Lechaem Road and has before it a gutter cut in the same material. Both the court and the porticoes were originally unpaved; in the former a thin marble pavement was afterwards added, and in the latter a figured mosaic. Though there is nothing of the colonnade in place above the stylobate, abundant material has



Corinth: Statue of a Goddess. After an Original of the Fifth Century, B. C. From East of Lechaem Road.

been found for a complete restoration of the order, which is of marble, 4.65 m. high. A well cut inscription on the frieze gives us some information concerning the dedicator of the porches, too little, however, to identify him; he belonged to the Roman patrician gens Aemilia.



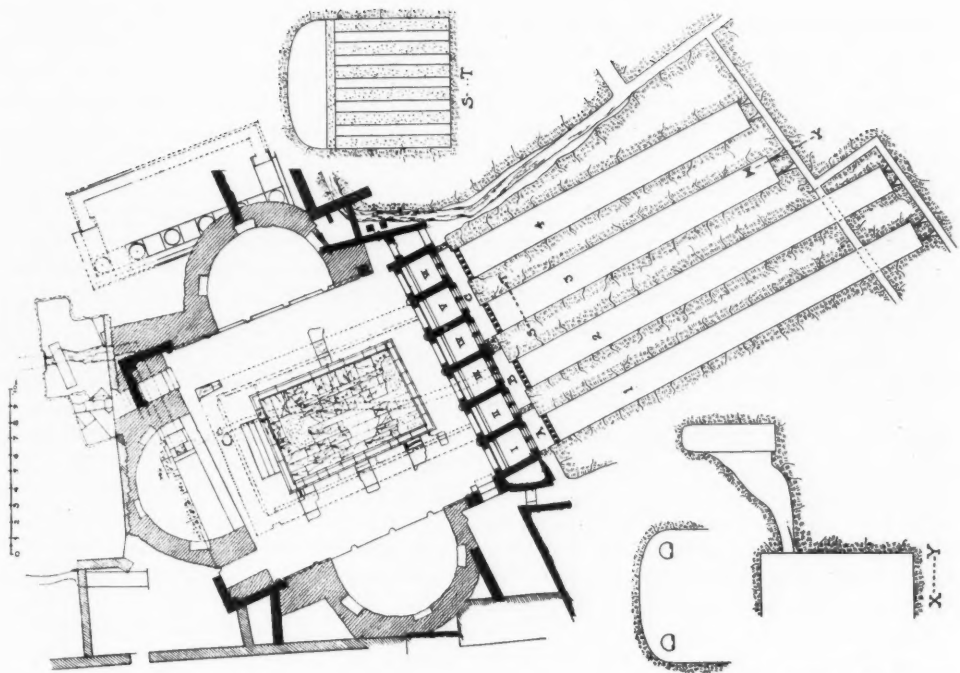
Corinth: The Fountain Peirene. Façade and Court, from the north.

According to Pausanias there was in the Peribolos a bronze statue of Apollo, and a painting representing Odysseus slaying the suitors of Penelope. If traces of this painting survive at all they will be on the wall of the eastern colonnade, which has not yet been excavated.

Opening into the south portico of the Peribolos is an apse 12 m. in diameter and 7.5 m. deep, which had across its front (in place, that is, of the rear wall of the portico) a row of four columns. Since its walls are too light to carry vaulting its roof must have been of wood. This apse suffered from the greater importance of the fountain Peirene. It was thrust off the axis of the Peribolos in the first place, because

the walls of the court of Peirene did not leave it room; and when, in the second century A. D., that court was remodelled, the apse lost its semicircular form and a considerable part of its area.

From the south portico of the Peribolos of Apollo one went down directly to the famous fountain Peirene by a flight of twelve easy steps (their total "rise" was 1.70 m.). A second similar entrance led down from the eastern of the colonnades at the head of the Lechaëum Road. Entering by either stairway we find a marble-paved court about 15 m. square, with massive apses on three sides and on the south, opposite the entrances, a row of six arches through which we look into as many low square chambers (p. 201).



Drawn by W. B. Dinsmoor.

Corinth: Peirene—Plan of Court and of Underground Chamber (I-VI), Basins (A-C) and Reservoirs (1-4) S-T and X-Y; sections at quadruple scale.

These Pausanias describes, fitly, as "chambers made like grottos, from which the water flows into a fountain in the open air." That fountain is seen in the middle of the court: a quadrangular sort of basin 6 m. wide and 9.5 m. long, sunk 1.2 m. below the general level, with a marble floor bordered by a white stone gutter. Water poured into this through spouts (at one period they numbered fourteen) out of a broad, covered, cement-lined channel that passes along three sides of the basin, drawing its supply from two of the chambers (II and V on the plan). The gutter discharged, near the northeast corner of the basin, into a deep drain, leaving the "basin" normally dry.

The court itself, with its three large apses and the quadrangular basin in

the centre, belongs to the second century of our era; the two columns and three bases in line with them set out a little before the main façade were placed where we see them in the fifth or sixth century A. D.; the façade itself—six semicircular arches with engaged columns between, in *poros* stone,—dates from the reign of Augustus; the chambers immediately behind, into which we look through the arches, have walls of the fifth century B. C. and are decorated at the back with a delicate Ionic order of the third century; farther in still, the three narrow, deep basins and behind them four cemented reservoirs with elliptical vaulted ceilings were doubtless constructed in the ambitious days of the Cypselid tyrants. The fragment of a marble column laid

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horizontally under the fourth arch of the façade dates from well down in the middle ages, when a tiny chapel occupied a corner (the southwest) of the court and this itself was a small Christian cemetery; the cemented water channel seen at the east edge of the floor of the court carried water down toward the village square until the end of the nineteenth century; the channel beside it, cut in sundry marble blocks (columns, architraves and cornices) did the same about a thousand years earlier.

In its earliest preserved form Peirene consists of four reservoirs, cut in the native rock (clay), 2 m. wide, separated by clay walls about 1.8 m. thick. The height at the front is about 2.5 m., diminishing toward the rear as the floor rises; the two eastern reservoirs are 20 m. long, the western 25.5 m. All are lined throughout with a hard waterproof plaster made of a brown bonding material (a natural cement, doubtless) and fine pebbles. A very large part of the original plaster is preserved, but there are also considerable repairs.

Each reservoir has at its inner end, near the top, two funnel-shaped supply holes (the easternmost has by exception only one) through which flowed water brought by a tunnel likewise cut in the clay and rock. This is about 0.60 m. wide and generally 1.75 m. or more in height. It is lined with cement across the floor and up about 0.30 m. on each side. At the openings through which water was discharged into the reservoirs a little dam 0.05 m. high was made, to assure a flow of clear water, sand and silt remaining on the floor of the tunnel. The principal source of the eastern reservoirs is about 150 m. distant, to the southeast, where the tunnel ends against a ledge of conglomerate rock from under which comes a copious

flow of water. Shortly before the end a branch leads to a second less copious spring. It has been possible to follow the western tunnel to a point only 100 m. from the reservoirs. Each tunnel could be reached through a passage from its end of the front of the fountain. The two sources together supply normally about 3,000 gallons the hour in midsummer. In 1919 after a very wet winter and a thorough cleansing of the tunnels, the flow measured even 8,000 gallons the hour. The capacity of the reservoirs may be reckoned at from 100,000 to 120,000 gallons.

Extending across the front of these are deep draw-basins 0.90 m. wide, the smaller eastern reservoirs having together one basin while each of the other two has its own. As may be seen from the plan, the supply could be turned at will into any reservoir, so that it was possible to clean the fountain by installments, two basins remaining in use while the third, with its reservoir or reservoirs, was emptied and cleansed. The front wall of the draw-basins was finished at the top with a plain coping of slight projection; the rear walls, separating them from the reservoirs, are of the same height as the front. Instead of being solid partitions (with only a hole to let the water through, that could be plugged at need) they are plain stone grilles with five openings. Consequently the draw-basins could not be emptied separately from their reservoirs. The front wall of the basins was, from the outside, of course a sort of parapet. Over it water was drawn in jars—witness the deep wearings—by persons standing where now the six chambers are, behind the Roman arches. The drain required by this extensive system with its abundant and varying flow of water has been traced for some 200 m. from the north

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side of the court, but the necessary separate direct connections of the three draw-basins with it, which must have existed, cannot now be found without destroying work of good Roman periods. For present practical purposes, therefore, a later drain underneath the court has been cut down to the required depth.

Above the basins and the area before them was an overhanging ledge of fine conglomerate rock, that forms the next stratum above the clay, which has here been completely cut away. The rock was doubtless supported by pillars and served as the roof of the portico of the fountain. In the course of time this was divided into six rooms by means of the well-built partitions that still survive. These are severely plain, with the outer ends finished as an *anta* having a very simple moulded capital. It is not clear whether the old draw-basins continued now to be used or were superseded by new ones within the six chambers. This seems certainly to have been the case in the last principal Greek period, when the delicate Ionic columns and *antae* with their entablature were set upon the old parapet of the draw-basins; for they are quite unfinished behind and are cut at the sides to receive stone slabs filling the intercolumniation. They form thus the ornamental background of the chambers, within which the water must now have been. Nothing survives, however, to show the details of the arrangement. At some later time, when the intercolumnar slabs were no longer in place, water appears again to have been drawn over the old parapet, beside the Ionic columns. A most probable time for this is the century of desolation, 146 to 46 B. C., and the earliest years after the refounding of the city.

There is little to indicate the appearance of the area before Peirene in Hellenic times. It may well have been simply an open square, mostly at a level some steps higher than the entrance to the fountain. In the latter part of the Greek period a shallow Doric hexastyle stoa faced it on the east (p. 204). The scanty remains of this building may be seen in the apse of the Peribolos of Apollo and in two rooms just south of that apse.

Not long after the refounding of Corinth the old simple façade of Peirene was masked by the *poros* wall we now see. A parapet with a moulded top was built along the front of the chambers, and these were made definitely draw-basins. Upon the parapet was set a series of stone arches and between these on projecting podia engaged Doric columns, supporting an architrave, above which are engaged Ionic columns. This two-story wall was carried around the other three sides of a quadrangular court, measuring about 17.5 m. north to south and 15 m. in width. Stumps of the whole series of half-columns may be seen *in situ*, with several shafts having more than half their original height, along the east and west sides of the court. The base of the north wall is preserved entire, or nearly so—well seen in the north apse—while under the stairs of the eastern entrance to the existing court there is a column of this wall and just to the east a bit of the stuccoed wall itself preserved to a height of 1.9 m.

Evidence may be seen here too of the fact that the walls of the quadrangle just described were, without being changed in plan, revetted with marble. At the time of the construction of the two-story *poros* façade about the court, or more probably at no great interval thereafter, an open-air fountain was



Corinth: Peirene in Hellenic Times. Front of the Fountain with Corner of Neighboring Hexastyle Stoa.  
*Restored by L. B. Holland.*

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built within the court, with its floor about 1.5 m. lower than that of the court and its walls about parallel with those of the court. A broad water channel, drawing its supply from the second and fifth chambers, was carried along three sides of this open-air fountain, delivering water through eleven or more spouts. The fountain seems to have been entered by steps at its northern corners. Probably towards the end of the first century A. D. the walls of the court were revetted with marble, but apparently no change was made in the plan. In the second century, however, probably by Herodes Atticus, the whole court was remodelled, getting the plan seen today. Massive apses, roofed with half domes, were added on three sides, the north line was drawn in, making the court nearly square, and the open-air fountain was also shortened by the insertion at the north end of a broad flight of four steps. Square podia were built filling the corners right and left of the steps, the floor was raised about 0.25 m., and paved with marble within a white limestone gutter. The spouts were now brought up to the top of the water-channel.

In connection either with this remodelling or with the earlier renewal in marble, the arched openings of the principal façade were narrowed so as to allow space enough between them for blind arches equal in width. There were now, that is, eleven arches where in the *poros* arrangement there had been six. The greater number of the marble pilasters that separated the arches are *in situ* still, though broken off. A very few fragments of blue marble voussiors of the arches have been found. With the reconstruction in marble the front walls of the chambers were reinforced in bricks and

cement, their waterproof lining renewed and repaired, and their side walls decorated with paintings of Mediterranean fish swimming in dark blue water. The paintings are best preserved in chamber IV.

The marble floor of the three apses rises one step above that of the court; their walls were revetted in marble, of which a little is still in place, and they were roofed with half domes. In the wall of each apse are three niches for statues. A statue basis found here in Peirene bears a dedication by the Corinthians in honor of Regilla wife of Herodes Atticus. From this it has been inferred that it was he who paid the bills for this most ambitious redecoration of the court. In the niches may have been set portraits of members of Herodes' family—as in his exedra at Olympia. There were two approaches to the fountain from the north: an eastern directly out of the south portico of the Peribolos of Apollo, a western from the colonnade alongside the Lechaem Road.

During the next two centuries there appears to have been little change in the fountain. At some time after the supply channels had pretty well filled up with sand and gravel, several spouts on each side were supplied by a lead pipe from a dam back in the tunnel at the west side of the fountain. The eastern tunnel was also dammed—both of course in order to have the water delivered under greater pressure. During these later Roman generations the chambers under the ledge seem to have been no longer used as draw-basins, the water from them being discharged through spouts into shallow marble basins.

We next see the fountain remodeled by setting a row of marble columns—the one capital *in situ* is of the Corinthian

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order—across the principal façade, placing short architrave blocks (wrong side up for choice) upon them reaching back to the wall, as “outlookers,” and then laying upon these regular architraves from column to column. On the exposed end of the outlookers was carved a palm branch, and on the face of the longer architraves, after an earlier inscription cut in Latin characters had been chiseled away, a new honorific inscription was painted in red. The preserved fragment of this may be seen on the step of the north apse. When these changes were made the court was repaved with thin marble (which appears to have come from the revetment of the walls), and the quadrangular open-air fountain was changed to a round basin, from which the surplus water flowed off, toward the northeast, in a gutter cut in the floor of the court. All the materials for these repairs and changes come from buildings of Roman date—the eastern of the two columns *in situ* is from the Peribolos of Apollo—combined as may be. The style of lettering would indicate that the red inscription was painted in the fifth century, or perhaps the sixth, of our era. At the very end of the fourth century Corinth was visited by a most disastrous earthquake, after which very probably such building material as we see in this last Peirene would have been available.

The artificial, elaborate character of the court and chambers and reservoirs and tunnels should not mislead one to imagine that Peirene is essentially an artificial fountain. The contrary is true; it is, and must always have been, a copious natural spring. Here, under a ledge of conglomerate rock, water gathering upon the impervious stratum of clay flowed off exactly as it does today at numerous points under the

bluff at the lower edge of the village and again down near the sea, in both which places the natural formation is quite the same as at Peirene—a stratum of conglomerate or limestone or sandstone resting upon a thick stratum of hard clay.

So, in spite of its present appearance, this Peirene is a *spring* of immemorial antiquity. It is thus not impossible that the traditions concerning Peirene apply to this very spring, though it is perhaps more probable that they have to do rather with the less copious source up on the Acrocorinthus, which Strabo calls Peirene and Pausanias states he was told was the real Peirene given to Sisyphus by the River God Asopus, from which the water was believed to flow down to the fountain in the city.

Passing from the Lechaem Road through the Propylaea we enter the Agora, which stretched one hundred and fifty metres to the west, to our right, and sixty-five metres to the east, with an average breadth from north to south of about ninety-five metres. In the days of the city's highest prosperity this whole area was paved with marble in two main levels. The lower level sloped very gently upward from the Propylaea to the eastern end and along the north side of the Agora, while the upper area was a terrace thirty metres wide along the south side and somewhat broader along the west end. The greatest difference in elevation between the two areas was four metres, but at the dividing line the rise from the lower to the higher level was from two to two and a half metres only. In earlier times the territory of the Agora was subdivided into more than these two terraces, the earliest arrangement naturally following most closely the original configuration of the ground.



Corinth: Basilica at east end of Agora, from the north: A-A-A, outer walls; B-B-B, inner walls; C-C, later walls across basement of eastern and western aisles.

Of the whole area of the Agora rather less than one third has yet been uncovered, of its periphery and the buildings which bound it a little less than one half. The pavement already mentioned lay from three to five metres below the surface of the ground and some early Greek levels were as much as thirty-four feet deep. The principal section of the Agora laid bare is the northern part westward from the Propylaea, but at the eastern end, somewhere near which one interpretation of the words of Pausanias would place the Temple of Octavia, excavations were carried on in 1914-1915. In this campaign a very large building was laid bare, evidently bounding the Agora on the east. It is a monumental edifice

running north and south with a length of forty and a breadth of twenty-five metres. The foundations, consisting of an inner and an outer rectangle, are extremely solidly built of large well-worked blocks of *poros*. The plan is that of a simple basilica. The walls uncovered, though at one point preserved to a height of six courses, really belong to the substructure of the building. The space between the inner and outer rectangles was a basement aisle running around the four sides of the structure. Lighted by small windows (of which two on the east side are still preserved), this aisle was at some time decorated with white marble revetment and with colored marble pilasters, while a row of columns stood in the

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Corinth: Statue of the Emperor Augustus; above life size. Found in "Julian" Basilica.

long axis. The eastern aisle is well preserved, but the western part of the building has almost entirely vanished. Nothing of the ground floor remains save the sockets cut for the heavy beams by which it was supported. The inner wall is very thick and doubtless carried a stylobate upon which stood columns.

Within the building were found one good block of a stylobate, two Corinthian capitals of large dimensions, and several blocks of architrave and frieze combined. We may thus with fair probability restore a colonnade of the Corinthian order about a large roofed hall, lighted from windows in a clerestory above the columns.

Numerous curved architrave blocks found in and about the building cannot be assigned to it, since it is in plan wholly rectilinear; but they are too heavy to have been brought from any considerable distance. One conjectures, therefore, that there may have been an apse at the north end of the building, containing in this case the Tribunal of the Basilica. A road and some small private houses need to be removed, however, before excavations can proceed in this direction.

The Basilica is made noteworthy by the sculptures found within it. Apart from three torsos—an early imperial copy or adaptation of a Greek semi-draped male figure, possibly a deity in its original form, and two men in armor, one of them wearing the cuirass of a commander who had won the honor of a triumph—there were four imperial portrait statues in heroic size, which take prominent rank among provincial Roman portraits.

One is clearly Augustus, fully draped in tunic and toga, of which a part is drawn over the head in sign of his office of Pontifex Maximus. This statue is preserved except for the feet and the hands. Another is an unusually well preserved nude statue of a youth, so closely resembling Augustus as to be most probably one of his grandsons (since he had no sons). There is likewise a second youth, of which only the head and chest are preserved, of precisely the same type as the first, also

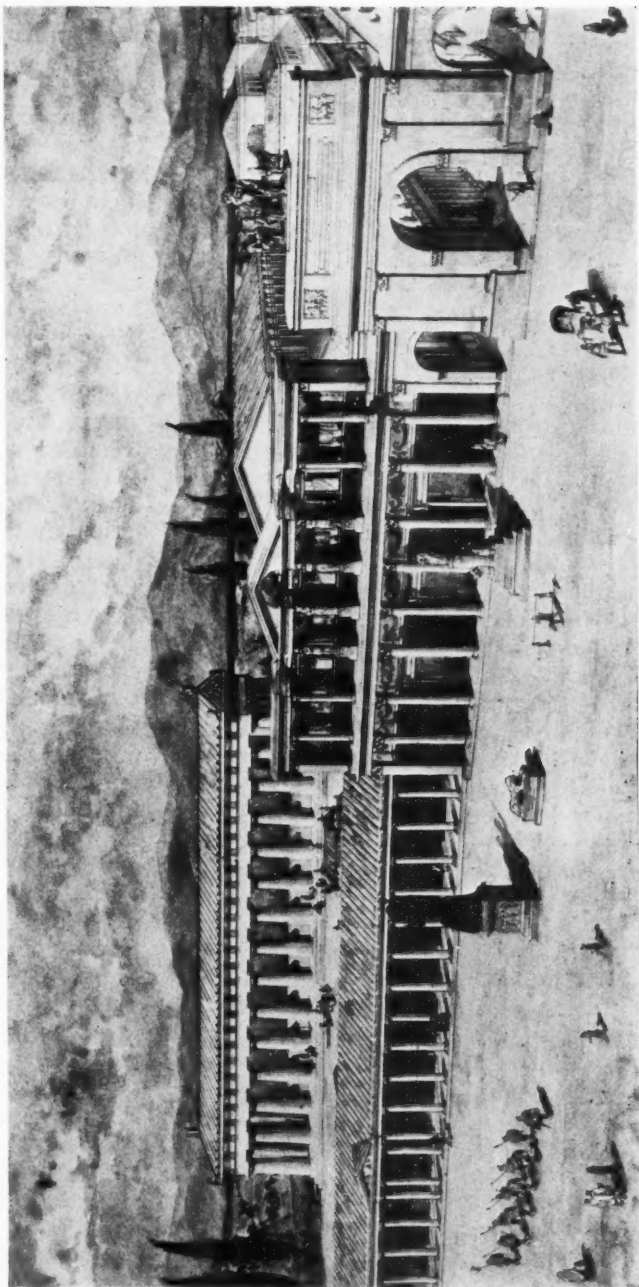
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nude with only the folds of a chlamys on the left shoulder. This youth is of a somewhat different physiognomy from the first, but might easily be his brother. Finally there is an almost perfectly preserved head, apparently of the Emperor Tiberius, an exceptionally fine piece of portraiture, unflattering enough to satisfy even Tacitus. Tiberius is represented unshaven, in sign of mourning.

Because of the presence of these portraits, and to distinguish this Basilica from that beside the road to Lechaeum we have ventured to call the building the Julian Basilica.

A substantial building, standing at a higher level than the Basilica to the south, occupies the rest of the east end of the Agora. Its purpose is unknown. On the side toward the Agora it is flanked by a shallow marble colonnade of the Ionic order.

Over against the junction of this colonnade with the Basilica stands a monument consisting of a circular podium (of which only the lowest courses are in place) from the centre of which rose a shaft over two metres in diameter. Of its original height and of what stood upon it there is now no



By H. D. Wood and L. B. Holland.

Corinth. Reconstruction of section of the Agora.

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Corinth: Pillar with colossal figure of Barbarian.  
From upper order of "Captive's Façade."

indication. The monument dates from not earlier than the second century B. C. Close beside it is a small pit cut in native rock; this contained a mass of pottery, all of it, curiously, dating from an early prehistoric period.

The Agora is bounded on the south by a great stoa which had 71 Doric columns on the front and 34 Ionic columns in an interior row. It is approximately 164 metres long. Judged by its architectural and masonic character it dates from approximately 400 B. C. in its original form, though it was evidently restored when Corinth was refounded. Only the two ends of this colonnade have been uncovered.

West of the Propylaea, upon a heavy foundation of concrete carried down to hardpan, stood a high wall decorated with a two story façade of Parian marble in the Corinthian order. The columns, set out about eighty centimetres from the wall, supported an elaborately ornate entablature: architrave with three fasciae, separated by carved rope and bead-and-reel, and surmounted by a carved leaf-and-tongue moulding and plain fillet; frieze bearing in its principal field a pattern of lotus and palmette—a faraway echo of the exquisite "honeysuckle" of the Erechtheum—crowned by a carved bead and egg-and-dart moulding; dentilled cornice which on the corona presents an elaborate floral pattern in flat relief with egg-and-tongue moulding and plain abacus. No complete column shaft is preserved, nor has the base of one of these columns been identified, but from the size of the members we have we may judge that the total height of the column and entablature was about six metres. In the second story the places of at least four of these columns were taken by colossal figures of barbarian captives.

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They stood upon bases decorated in high relief with symbolic or semi-real scenes after battle: Victory adorning a trophy, a captive beside a heap of spoils, a "native" standing at the knee of his motherland, who seems to be mourning for her lost freedom. Two bases are preserved and parts of four colossal figures. Two are of women of whom only the heads, surprisingly well preserved, remain. Of the two men one is practically complete, the other preserved from the thighs up. They wear trousers after the strange manner of their country, a very full long-sleeved tunic, a cloak held by a large round brooch, and a soft, pointed cap. Their hair falls in long ringlets to their shoulders. Standing in an easy attitude, weight on one foot, with their arms folded, they are in truth monuments of resignation and patience.

At the back of these figures square pillars with Corinthian capitals carry an entablature similar to that of the lower story but about one third smaller. The cornice here is of greater overhang than the lower one, with relatively plain corona, but having the soffit of the overhang decorated with modillions and coffers. This upper entablature breaks back at two points into semi-circular bays, beyond which the frieze is without carved ornament. The pillar-capital to which the back of the head of the better preserved captive fits has a trapezoidal abacus of a shape suiting it to carry the curved epistyle at the east end of the western niche; the other existing capital has a square abacus and supported therefore straight pieces of architrave. A preserved bit of raking sima shows that there was a gable over the portion of the façade between the niches.

This elaborate and somewhat pretentious structure served in effect as

the south face of the Basilica west of the Lechaëum Road, though the actual south end of that building was twenty metres away. Between lay an open court, to which access was had through doorways cut in the wall behind the Captive's Façade. The rear of this wall, toward the court, seems to have been decorated with a lower order of pilasters of slight projection and an upper order of half columns or of pilasters. Of all this we possess certainly identified only a few architrave blocks. From masons' numbers on these it appears that there were originally at least a dozen such blocks, or more probably twenty or more. They were thus, presumably, carried round at least three sides of the court.

Along the north side of the Agora, west of the Captive's Façade, was erected at some time in the first century A. D. a colonnade with a row of fifteen chambers behind, called by us the Northwest Shops. The central room of the fifteen, still covered by its original stone vault, is a conspicuous landmark in this part of the excavations. Of the order of this colonnade nothing is preserved except the stylobate, upon which weather lines and other traces show that the lowest member of the column-bases was a square plinth, and that the columns were so placed as to allow thirty-two in the whole length of the building. Though the bases indicated by the plinth should be Ionic, the order of the façade may in those times have been Corinthian or even Doric. The total length of the building was almost seventy-three metres. It presumably had a second story, for the walls of the shops are all of distinctly heavy construction. Only the central shop had a vaulted ceiling of stone, since only there is provision made for the thrust



Corinth: Northwestern part of Agora, from east; Greek Bases, Triglyphed Terrace wall and (C) entrance to Sacred Spring; Roman Northwest Shops (B); against sky, Mediaeval Church of St. John (left) and Greek Temple of Apollo (right).

of such a vault. In the others the ceiling was doubtless of wood. With the shops in two stories there may well have been a second row of columns in the façade, superposed upon the first. Concerning this, however, there is no certainty.

Immediately behind the Northwest Shops and masked by them is a long colonnade, the Northwest Stoa, built in Greek times, probably in the third century B. C., and restored when the city was refounded by the Romans. It was about one hundred metres long, with a depth of ten metres. Along the front were forty-seven Doric columns, widely spaced in the Hellenistic manner, with three metopes and triglyphs to each intercolumniation. Inside a row of twenty-two Ionic columns assisted in supporting the roof. The whole building was constructed of *poros* stone, the surface covered with a very thin stucco, which may be seen on

many blocks underneath the heavier plaster applied by the Roman restorers.

The rear wall of the stoa was very heavy for much of its length, since it served as a terrace wall, supporting a filling of earth and stones by which the ground level behind was raised some five metres higher than that to the south. The construction of this wall is somewhat peculiar in that cement is used in the joints, though the blocks are fitted perfectly and bonded by the usual iron clamps and dowels. The joint is exact at the front and along the top, but the ends of the stones are slightly hollowed out, and the space thus left between blocks was filled with cement quite like that used in lining cisterns and water channels. The purpose of this arrangement was doubtless to prevent moisture from coming through the wall at the joints. Rather little is left of the walls of the

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stoa, and of the interior columns in most cases no more than the sub-base remains; but the stylobate is preserved in nearly its whole length and many exterior columns are still *in situ*, some of them standing to a good height.

This long stoa formed the northern border of the Agora during the last century of the Greek city and the first century of the Roman. With the building of the Northwest Shops it fell into disuse as a colonnade and its front was closed by a wall built along the line of the stylobate, filling the spaces between the columns. The building continued, however, for a very long time still to be used, serving no doubt as a sort of warehouse. The east end was taken down and built over into two chambers or more. The walls of these latter fortunately preserve for us some of the original architectural members of the stoa with the stucco of both the Greek and Roman periods clearly distinguishable upon them.

Within the Agora in the space now open between the Captives Façade and the Northwest Shops (in Roman times deeply buried beneath these buildings) and to the south of this area is a low terrace wall which, running some distance from northeast to southwest, turns westward, making a curious, obtuse angle. This wall, owing to the fact that it is decorated with a triglyph frieze, forms a very conspicuous feature in this part of the excavations. It stands now in three sections, the middle one set out some distance eastward from the line of the other two; but originally it formed one straight line with two interruptions or openings for stairways. One of these latter, about five metres from the corner mentioned above, leads down to a trapezoidal underground chamber which, from the two lions' head spouts of

bronze still preserved in its rear wall, is seen to be a fountain.

Strange as it appears there is no doubt that these sections of triglyph frieze, though only one or two blocks are literally in the place for which they were first designed, were nevertheless made to serve their present purpose. It is the coping that betrays them; but for it one might perhaps believe, though with some difficulty, that they had been taken from their normal places in the entablature of a Doric building. The coping, however, can have had no such place. It consists of four members, cut on the same stone: a narrow plain fascia; a simplified Doric hawk's-beak moulding decorated with broad tongues painted alternately red and blue with yellow borders and centres of blue or red; a broad band bearing a Greek fret in yellow and red on a blue ground; and, as convincing evidence of the purpose for which these blocks were designed, a crowning member projecting fifteen centimetres from the face of the stone, clearly intended to protect the painted ornament and the triglyph frieze from the weather. In the frieze itself the triglyphs were painted blue, the metopes, under a blue band at the top, white. This white was renewed from time to time, and since some of it spread to the surface of the stones below, has thus left sure proof of the former existence of triglyph friezes, now entirely gone, on three other terrace walls in the neighborhood in addition to those here described.

On the top of the decorated terrace wall were tripods and statues, dedicated doubtless to the hero of the adjoining shrine discussed below. A bronze statue near the west end of the south wall was a work of the great sculptor Lysippus, as the existing inscribed pedestal of black Eleusinian stone testifies.

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Corinth: Bronze spout in Sacred Spring. From a cast.

The fountain which has already been mentioned gives evidence of having been used for long periods. In very early times there was at this point a projecting ledge of conglomerate beneath which over a bed of clay trickled a small spring. Though obviously of scanty volume the water of this spring seems to have been considered of great value, and no doubt in time tradition grew up about it until it came to be regarded as holy.

The first construction of which we have definite remains dates from the beginning of the fifth century B. C. or perhaps considerably earlier. At this time a rectangular chamber was built eastward from the ledge, with a reservoir at its east end, while its west wall closed up the low cavern beneath the projecting conglomerate shelf. In this wall two bronze spouts in the shape of lions' heads were set and behind the wall in a carefully laid floor were shallow channels, carried back as far as human beings could penetrate into

the diminishing cavern and designed to collect and convey the precious water to the two outlets. How precious the water was considered may be understood from the fact that the joints of the stones in these channels were meticulously covered over with thin bronze sheathing so that not a drop might escape.

Dripping from the bronze spouts into a well-made channel carved in *poros* the water was carried round the sides of the stone-paved chamber to the reservoir which occupied the full width of its eastern end. Access to the reservoir was provided from the east, where two deeply worn grooves close together in the stone side of the basin show that water was regularly drawn at only two points. This would be inexplicable were the fountain a public one; the public would surely have dipped in their jars everywhere along the front, and we should see a dozen wearings instead of merely a pair.

On the north side of the reservoir a stepped terrace-wall led up to a small triangular platform north of the fountain, from which in turn a flight of stone and rock steps ascended to the main terrace above to the northwest. The reason for carrying water up to this particular spot we shall discover later. In this early period the terrace wall decorated with the triglyph frieze, which has been described above, did not yet exist.

The building of this wall indeed marks a new period in the history of the fountain. For some reason which is not now clear it had become desirable to alter the ground level about the spring. When this rearrangement was completed the fountain had been transformed into a dark subterranean chamber entered by a narrow flight of steps leading down through the triglyphon as



Corinth: Area northwest of Propylaea, from southeast. In foreground, Greek Street, cut by two early Roman walls (A-A). Beyond these, foundations of Basilica. At left, at foot of the column of earth ("Martyra"), Boundary Stone of Sacred Precinct. At left edge of photograph, tunnel and water channel from small Greek Temple underneath Roman Northwest Shops (B).

we see it today. Coincident with this alteration seems to have been a diminution of the flow of water from the spring to the scantiest trickle. In the underground chamber no provision at all is made for carrying off waste. Jars presumably stood regularly beneath the lion's head spouts, receiving the precious drops and storing them against the time of need for sacrificial purposes. For perhaps one hundred years—throughout the fourth century B. C.—this arrangement of the spring endured. During this time the steps descending to the chamber were very little worn indeed—less than during the first five years of modern visits. Clearly the public was not admitted. Only the servants of the shrine on the terrace

above to the northwest were permitted to go down to fetch the "holy water" when their sacrificial ceremonies required it. Coming up the flight of steps with their water jars they walked some metres along the triglyphon, then turned to the west, mounting by a second stairway to the terrace of the shrine.

In the course of this century some alterations were made. Thus the middle section of terrace wall between the two stairways was set forward about one metre from its original line in order to provide more space above for votive offerings.

Not much later the Old Spring seems finally to have run absolutely dry. That it was still regarded as sacred,

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Corinth: Greek round-ended Temple; circular altar, from north. B-B, wall of Roman Northwest Shops; C, entrance to Sacred Spring.

however, is shown by the fact that, though now no longer of use, it was not dismantled, but was carefully closed with stone slabs and covered, together with the area to the east, with earth. For this very reason the fountain is still preserved in our own day with its bronze lion's head spouts intact, for the Romans never saw it or suspected its existence.

After the Old Spring had thus been buried, water still continued to be required in this spot. It was brought from a great distance in a well-constructed stone conduit, lined with cement and covered chiefly by stone slabs, and almost directly over the ancient reservoir, but more than two metres higher in level, a small square basin was built. From this basin jars could be filled and carried straight to the door of the shrine across the buried spring and triglyphon. This last period, in which other water was substituted for that of the Old Spring, beginning perhaps about the middle of the third century B. C., continued till the Roman conquest and the destruc-

tion of the city in 146 B. C. The illustration gives a general view of the ruins discovered to the northwest of this Propylaea (p.215).

A small temple or shrine on the terrace above the wall with the triglyph frieze has been mentioned more than once, and it has been shown that in all periods of the Old Spring direct communication was maintained with this sanctuary. Of this building only the foundations and two blocks of the first course of the wall are preserved. It is a shrine of no great size, rectangular at its east end, apsidal toward the west. Of extremely good construction, its blocks are perfectly matched and bonded together by dove-tail clamps, showing that the building must date from the fifth century B. C.

Exactly at its centre is a small round altar, which, to judge from its level and its orientation, seems of earlier date than the temple. A circular stone curb ran round it, concentric with the altar shaft and about twenty centimetres from it: how much it rose above the floor can only be conjectured, since its top has been broken away. The little round altar stood thus within a shallow circular well. Starting from close beside it to the east, a cement-lined channel, partly made of blocks of *poros*, partly cut in native rock, was constructed to carry water eastward down to the edge of the terrace. Alongside the channel is a tunnel large enough for a man crawling on hands and knees. Its walls and floor are cut in solid rock, its ceiling, which also served as pavement of the area east of the temple, was of well fitted blocks of *poros* of varying thickness, made even on top by a layer of cement where necessary. The roof of the tunnel covers also the water-channel, leaving sufficient space so that a man

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from the tunnel could conveniently clean the channel. The tunnel ends beneath the temple just short of the altar. At their lower end the tunnel and the water-channel reach the face of the terrace at the level of the triglyph frieze, which here rests on a beautifully constructed three-course base. Upon a stone platform along the foot of this latter stands a stone bowl or basin to receive the water from the channel, which poured out through a spout in a metope. The next metope, swinging as a door, gave access to the tunnel.

In order that this metope might not stand out conspicuously as a door the other metopes of the frieze were made to look exactly like it. Ordinarily, as may be seen in numerous instances in this very region, when the frieze is of small scale, a triglyph and adjacent metope are cut from a single block of stone; or where the metope is of other material than the triglyph, the latter and the backer of the metope are cut from one block, while the metope itself, as a thin slab, is inserted from above. In the present instance, however, the triglyph, the backer of the metope, the narrow band at the top of the metope, and a second band above this (belonging usually to the cornice) are all cut from one block, while the metope itself is a separate inserted slab of the very same material. This unique, wasteful, and apparently futile method can hardly be explained otherwise than as due to a desire to have the metope appear separated (by a crack) from the bands above it. One of these metopes is then a genuine door, with the bands above it forming its lintel, and the others are deliberately made to match it in appearance. A passer-by might think the frieze a bit strange, but would certainly not imagine the metopes a row of doors, and would thus probably never

suspect that one of them actually was a door. Close inspection of the place, even visiting, was by official edict strictly forbidden. For, a little to the east, where a main street leading up to the temple of Apollo gave access to the area below the terrace, there was set by the curb which separated this area from the street a stele bearing in large old-fashioned letters (of the kind used about 500 B. C.) a warning that the place was sacred and not to be entered on penalty of a specified fine. If one whose curiosity led him to disregard the fine entered the area and by chance happened to push open the metope-door (which naturally could not have been betrayed by a lock) he was still not free to go on up the tunnel. For just far enough inside to allow a man to crowd in and close the metope behind him, a real door, doubtless well locked, barred further progress except to one who had the key. This we know from the grooves cut in the rock walls of the tunnel.

This tunnel was without doubt, so far certainly as the masons who built it and the visitors who saw it being made had reason to know, provided to give access to the little water-channel that served the altar, for periodical cleaning. It was a very elaborate and costly arrangement, to be sure, but may well have seemed a luxury becoming the sanctuary, which may not have lacked funds. Ordinarily a water-channel, placed like this one close beneath the surface of the ground, was reached, if it ever became clogged, by lifting one or more of its cover slabs. Tunnels are usual only for aqueducts well under ground.

After the masons' work was finished, eight or ten generations of citizens and priests frequented the sanctuary. Shall we suppose that it never occurred to

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the latter—whatever the original purpose of the tunnel—that here was apparatus that might be used to strengthen faith, to augment the fame and perhaps the income of their sanctuary? At the upper end of the tunnel, within the temple, there is a small hole opening out like a megaphone below the floor level. Under favorable circumstances a voice sounding here might impress a listener in the temple not a little. Or if men came to seek healing and slept a night in the temple, strange sounds from a mysterious source would be more likely to induce dreams that could be remembered and that could be interpreted by the priest to the advantage of all concerned. Or if one standing alone before the altar were to ask questions of a most private and secret sort, would not the answer given the next day be more apt if a priest with attentive ears had lain concealed in the tunnel when the question was propounded?

Who the god of this small temple was we do not know. Probably a "hero" rather than one of the Olympians. Some local demi-god, most likely, at whose simple altar there was from time to time a sacrifice involving use of water, along with, or after, wine or milk or honey or oil or blood. More specific evidence as to his identity we can hardly hope to find. The whole area has been excavated to hardpan without bringing to light a clue to his name.

With the destruction of the Greek city the temple ceased to exist. Not far to the south, however, there is a round foundation of early Roman times that may perhaps have borne a shrine or tiny temple dedicated to the same hero as the original temple and altar that had gone before. Some tradition of the sanctity of the place may have survived the century of desolation.

Some distance to the southwest of the temple, which apparently had no walled precinct about it, we find ourselves in an open part of the Agora, where a broken line of bases seems to mark the southern boundary of the sacred area. Following westward the line of these bases (and passing by a tunnel beneath a modern road) we come, ascending slightly, to the northwest corner of the Agora. To the west, forming the west side of the great open Agora, are the ruins of a colonnade, backed by a row of six vaulted chambers. The shallow portico was built in bluish marble in a modified form of the Corinthian order. On the faces of the capitals were carved curious animal-heads, winged lions, sheep, eagles, etc. Farther south is the concrete foundation of a broad monumental staircase which led up to a high Roman temple of which the massive concrete foundations still project above ground. This may be the building Pausanias calls the temple of Octavia.

From the northwest corner of the Agora in Greek times a street led out directly toward the Fountain of Glauce. In the Roman period the road first proceeded north through a simple gateway, probably an arch, and then, having passed a sacred precinct on either side, turned westward. Of these two precincts that on the west side contained a small temple set in an enclosure with colonnades on three sides and a wall decorated with half columns on the fourth. In this latter was the principal entrance, marked on the outside by a small portico with four unfluted columns. This sanctuary, dating probably from the first century A. D., is in a very ruinous state. No evidence has come to light to show to what god it was dedicated.



Corinth: Temple of Apollo, from southwest.



Corinth: Temple of Apollo, from east. A-A, foundations of Peristyle; bed cut in rock for foundation of cella walls, B-B; for interior columns, C-C.

On the opposite side of the street was a much larger precinct, which we are now able from Pausanias' description to identify as that of Apollo. Until excavations gave the key to Pausanias' words the very ancient temple (p. 219), which here stands conspicuously on a hill as the characteristic landmark of Corinth, was claimed now for Poseidon, now for Athena. Seven only of the original thirty-eight columns of the peristyle remain in their places at the west end of the temple; the foundations of four others, that were removed by the Turkish owner some one hundred and thirty years ago, are still *in situ*; and yet another four lie as they fell and were buried before the first modern description of the temple was written. On their protected lower surface as they lie they preserve very well both the

original thin Greek stucco, with which the surface of the soft limestone was coated, and the thicker plaster of the Roman restoration. The foundations of the temple were everywhere bedded in the living rock, and the lines of the cuttings show clearly (p. 220) the plan and dimensions of the structure. A row of columns ran round the building, six at the ends and fifteen on the sides, the latter being of slightly smaller diameter and less widely spaced than the former. The shafts of the columns are massive monoliths nearly twenty-four feet tall and somewhat less than six feet in diameter. With their curiously flat, archaic capitals they suggest the age of Periander as the approximate time when this venerable structure was built. Within the peristyle the temple had at each end a *prodomos*



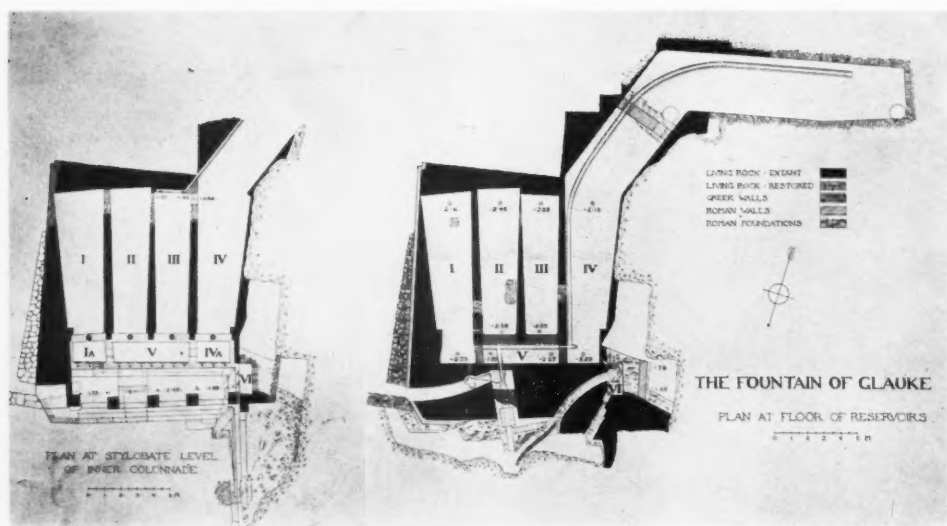
Corinth: Fountain of Glauce, from north.

with two columns between *antae*, and seems itself to have been divided into two *cellae*. In the western of these are remains of foundations of a heavy basis in a position appropriate for a cult statue. If there really was such a statue here the temple must have been a double one, though we have no indication to what god other than Apollo it was dedicated. The innermost lines of longitudinal cuttings were for the foundations of interior columns. In the *pronaos* under the floor at the southwest corner was a rectangular strong box lined with waterproof cement. Two walls and the floor are preserved; for the other two walls the foundations of the temple were used. What treas-

ure this box contained in the days of the glory of the temple; how it was opened and how often; by what means it was protected against plunderers—of these matters we know nothing.

From about the sixth to the third century B. C. one could approach the temple directly from the Agora by a flight of steps leading to the southeast corner of the precinct. These, which may be seen and used now, seem to have been buried at the time of the construction of the long Northwest Stoa. If, as is likely, better steps were then built to replace these, they have left no trace.

The hill on which the temple stands is shown by stone implements, potsherds, and obsidian blades found in the



Corinth: Plans of the Fountain of Glauce.

By W. B. Dinsmoor.

accumulation directly above native rock, to have been occupied as a place of human habitation from time immemorial, at least two or three thousand years before the temple was built. Who can say what elements of a primitive cult established on this hill were handed down from generation to generation and finally united with the worship of Apollo in a splendid Greek temple?

About eighty metres west of the Temple of Apollo, immediately beyond the anonymous precinct mentioned above, is a conspicuous structure which by the testimony of Pausanias we may unhesitatingly identify as the Fountain of Glauce. The fountain was in plan not unlike Peirene, having four great reservoirs with three draw-basins at the front of them. These were approached through a portico with three square pillars between *antae* supporting a heavy stone ceiling in the form of an elliptical vault. The draw-basins fall also within the portico as defined

by this ceiling. The heavy roof over the reservoirs is horizontal underneath. The whole structure was cut out of living rock, except for certain short partitions, a bit of flooring and the parapet. When the reservoirs were full the water was about ten feet deep and the storage capacity of the fountain was thus about 14,400 gallons. Water was brought by a small conduit from a source at the base of the Acrocorinthus, the inflow being not very great, certainly much less than in the Fountain of Peirene. The reservoirs and basins are lined throughout with very hard waterproof cement, brown in color and containing very small pebbles, these being slightly coarser in the floor than on the walls. The fountain seems to have remained intact during the life of the Greek city. With the Roman restoration the fountain was again brought into use, the only apparent change in its plan being a curtailment of the long western reservoir. Across this a wall was built, leaving it only a



Corinth: The Odeum. Staircase and part of Auditorium, from northeast.

little larger than the other reservoirs. The rock walls behind this wall were all quarried away at this time. Probably at this same time what remained of the ledge at the west side of the fountain was also removed, leaving the west wall very thin as we see it now. Ultimately the fountain fell into decay and its supply of water was cut off. Most of the roof of the western reservoir and of the portico, together with the columns and part of the west wall, collapsed. In time a house with two stories and a basement, the second story being on the roof, was established in the fountain. The house built in a fountain, however, had no water until a well was laboriously sunk through the floor to a depth of fifteen metres. At last the house, too, was abandoned and the

Fountain of Glauce, now merely three low caves side by side, came to be used as a sheepfold. As such, and known to the inhabitants of the modern village by an unsavory name, *boudroumi*, "the dungeon," it became the object of the excavations which have now finally restored to it its ancient name.

How old that name is we do not know. The fountain most probably dates from the reign of Periander or his father Cypselus. Only Pausanias records the tradition that Glauce, vainly seeking relief from the flames of the poisonous robe which Medea had sent her as a wedding present, flung herself into this fountain. Strictly speaking, according to the legends, Medea and Jason and the hapless Glauce really lived centuries before the

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fountain was built. But by Roman times the antiquity of the latter was nevertheless great enough to let the name seem reasonable, especially since not far away could be pointed out the tomb of Medea's children—stoned to death, according to the version of the story preserved by Pausanias, because they carried the baneful gifts to the king's daughter.

This tomb, Pausanias states, was to be seen beside the Odeum. The tomb is still unknown, but in 1907 the Odeum was rediscovered, lying less than forty metres west of the Fountain of Glauce. This has been excavated only enough to show its size (about seventy-five metres in outside diameter) and to disclose one of the entrances and stairways, and a small section of the stage. Where possible the seats were cut in native rock, elsewhere they rested on a bed of concrete above concrete vaults. The visible exterior walls were of coursed masonry. The earth removed in this exploratory digging was of necessity left beside the trenches and makes it impossible for a visitor to obtain a good view of the building. Should it ever be completely cleared, however, the Odeum will stand as an impressive Roman ruin.

Just north of the Odeum, at a much lower level, is the theatre. This, too, has been excavated only by trenches in which were found parts of the outside wall and of *diazomata* and foundations for aisles, stairways, and seats of the Roman theatre and of stairways and actual seats of the Greek theatre. This latter rose much less steeply from the orchestra than did the Roman. Covering a little more than a half circle, it was divided into fourteen sections or *kerkides*. The Roman theatre appears to have been an exact semi-circle with fourteen sections below and

twenty-eight above. The small part of the orchestra and stage that has been uncovered shows one Greek and two Roman periods, besides various Byzantine foundations. Numerous fragments of sculpture found here are among the best the Corinthian excavations have yielded. There were also some very interesting terracottas, including a mould for making small busts which were copies of the Athena Parthenos. This is doubtless from the



Corinth: Marble Head of a Girl. From a cast.

establishment of a coroplast who supplied offerings for dedication at the shrine of Athena the Bridler, whose sanctuary was near the theatre.

The excavations, then, have thus far uncovered many buildings, chiefly of Roman times, have determined the plan of the ancient temple and ascertained that it was sacred to Apollo, have brought to light the fountains of

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Peirene and Glauce with their provisions for the supply and distribution of water, have made Pausanias' description of the city comprehensible, and have unearthed many works of sculpture, many inscriptions, and many minor objects of interest. A particularly attractive piece of sculpture is the marble head of a girl of a style which may be ascribed to the fourth century B. C., though the head itself, in spite of its excellent workmanship, is probably a Roman copy (p. 224). Other interesting works of sculpture are several portrait statues, among them one of Augustus Caesar. Among the inscriptions is one cut in a large block of stone which it identifies as the lintel of the Synagogue of the Hebrews—independent testimony to the existence at Corinth of a body of Hebrews from which could arise the Christian congregation ad-

dressed by St. Paul in his epistles. In connection with the excavations, the Acrocorinthus has been partially investigated, and explorations in the neighborhood have discovered numerous traces of pre-Hellenic inhabitants. Incidentally, through the excavations and with the help of the American Red Cross, which undertook to relieve the village of a source of malaria, the village of old Corinth has received an improved and purified water supply.

The excavations are by no means finished, but their results have been considerable. It may be that parts of the ancient city will remain, and ought to remain, undisturbed; but the School at Athens expects to take up the work again, to bring it to a satisfactory conclusion, and publish its results in proper form as soon as possible.



Corinth: Venetian Fortifications on the Acrocorinthus.

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### EXCAVATIONS OF PRE-HELLENIC SITES

When the American School at Athens was founded little was known of any inhabitants of Greece or the neighboring lands previous to the eighth century B. C. To be sure, Heinrich Schliemann had excavated at Hissarlik in 1871 and again in 1878, at Mycenae in 1874, and at Orchomenus in 1880, and the beehive tombs at Menidi and Spata, in Attica, had been discovered in 1877 and 1880; but the significance of these discoveries was as yet imperfectly understood; Mycenae was generally regarded as the greatest centre of the civilization disclosed by them, which was popularly associated with the Homeric poems; and, although Alexander Conze's study of Melian and other early vases had made the "Geometric Style" familiar to the limited number of real archaeologists then in existence, it is hardly too much to say that people in general—even those who had a genuine interest in antiquity—thought of Greek art as beginning certainly not before the eighth century B. C., with no earlier art existing in Greece upon which it could build, and reaching its height in the brief space of two or, at most, three centuries.

In the last forty years all this has been changed. It is now plain that the greatest and most widely influential centre of pre-Hellenic culture in the Aegean regions was in Crete, but that other places also were important; that there were invasions and wars at intervals during many centuries, and that the new population—the Hellenes—did not enter the land at one time as an overwhelming flood, but in many successive waves; that the earlier population influenced the invaders profoundly, though in varying degree; and that Greek art, though vastly different

from that which had preceded it and immeasurably superior to anything that had been known in Greece or elsewhere, was, nevertheless, not a sudden and miraculous flowering from no visible stalk, but a growth from the art of the pre-Hellenic peoples upon which had been grafted the new spirit of the invaders from the North. It is now understood that the relation of Greek art to the pre-Hellenic art of the Aegean regions is somewhat like that of mediaeval art to the art of ancient Rome.

The study of pre-Hellenic art and civilization has, then, a real interest for the student of classical Greece. Moreover, the pre-Hellenic culture was not one and the same in different places throughout the long centuries before the coming of the Hellenes. The different phases of this culture—or rather, the different cultures of different times and places—are well worthy of investigation. Most of the work of this kind has been done since 1900, and in it the American School at Athens, though it cannot claim the most brilliant discoveries, has taken an honorable part.

In 1900 excavations were carried on for the School by Miss Harriet A. Boyd (now Mrs. Hawes), Agnes Hoppin Memorial Fellow of the School for that year, at Kavousi, in the eastern part of the island of Crete. Miss Boyd bore the entire expense of the undertaking, the success of which was remarkable. At six points in the neighborhood of Kavousi significant ancient remains were discovered, including cemeteries and the foundations of primitive habitations, one large and eight small beehive tombs, and a valuable series of objects illustrating the changing conditions of Cretan civilization from the very beginning of the Iron Age to the



The Island of Mochlos.

later part of the period of Geometric art. Among these objects are bronze arrowheads, rings, bracelets, fibulae (safety pins), pins, and nine pieces of thin plate with engraved designs; and iron swords, spear-heads, and axes. Of especial interest are the numerous vases found in the beehive tombs, which are built of small stones, not, like the great tombs at Mycenae, of large stones carefully cut and joined. The tombs at Kavousi are not those of great rulers over a mighty city, but of petty chieftains or dignitaries in a country district. The decoration of the vases shows a gradual evolution from the curvilinear style inherited from the preceding great Bronze Age of Crete (the "Minoan Age") to the purely rectilinear geometric style characteristic of the developed Iron Age. Here, at any rate, there was a gradual change, not a sudden and immediate break with the earlier culture.

The results of the excavations at Kavousi were such as to encourage further investigation of sites in eastern Crete, and Miss Boyd succeeded in arousing so much interest in Phila-

delphia that funds were subscribed and an expedition equipped in the name of the American Exploration Society to carry on the work. The excavations in 1901, 1903, and 1904 at Gournia, Vasiliki, and other prehistoric sites on the isthmus of Hieropetra, Crete, were carried on under the auspices and at the expense of the American Exploration Society, not of the School at Athens, but the head of the expedition, Miss Boyd, was a past member of the School, and she was assisted by Miss Blanche E. Williams (now Mrs. Wheeler), Miss Edith H. Hall (now Mrs. Dohan), and Richard B. Seager, two of whom were past or actual members of the School, while Mr. Seager was already tending to ally himself with it. Since, however, the School cannot claim direct credit for the work, it will suffice to say here that the remains of many ancient buildings were laid bare and a great number of minor objects found, among them many domestic utensils. The changing conditions of a small Cretan town which existed through many centuries before the end of the pre-Hellenic (Minoan)



Stone vases from Mochlos.

civilization were disclosed, and the life, not only of the rulers, but of the common folk as well, was made vividly real.

In 1906 Mr. Seager carried on at his own expense, but in the name of the School, excavations at Vasiliki, a site which had attracted his attention when he was attached to the expedition under Miss Boyd's direction. Here he found remains of houses of three periods, built of stone, with use of wood and plaster. The earliest pottery found here is sub-neolithic; the next is chiefly painted with dark paint on a light ground, and is contemporaneous with the earliest house walls; the third is a peculiar mottled ware, of red color shading to black and orange, often highly polished; the fourth class has geometrical designs in white on a black ground. The last period is that which immediately precedes that of the fine Kamares (Middle Minoan) ware at Knossus. The site of Vasiliki may have been inhabited from about 2500 to 2100 B. C. The interest of these excavations lies in the addition of new material which can be clearly classified and more or less accurately dated.

At this point it may be worth while to say a few words about the classifi-

cation and the dating of pre-Hellenic antiquities. In the first years of the twentieth century, Sir Arthur Evans had the good fortune, through his learning, ability, enthusiasm, and persistence, supported by sufficient resources, to uncover the ruins of a vast palace at Knossus (Knossos), the home, according to ancient story, of King Minos, son of Zeus. Here the Minotaur, half man and half bull, was kept in the labyrinth from which Daedalus and his son Icarus escaped on wings of feathers fastened together with wax. The ruins uncovered by Sir Arthur belong obviously to several different periods, as do the objects found in them. Making use of the name of Minos, Sir Arthur called the civilization here represented "Minoan" and, using the different kinds of pottery as his chief criteria, he divided the long ages of its existence into three periods, Early Minoan, Middle Minoan, and Late Minoan. For further convenience, each of these is again divided (changes in pottery and its decoration being still the chief aids in the division) into three parts, Early Minoan I, Early Minoan II, Early Minoan III, etc. In this way a system of relative chronology has been created. To establish an absolute chronology



Jewelry from Mochlos.

(i. e., to give definite years or centuries B. C.) recourse is had to Egyptian objects found at Cnossus or elsewhere in Crete and to Minoan objects found in other regions, especially in Egypt, where the absolute dates are more or less accurately known. By such means it has been determined that

the Early Minoan period extends from 2500 B. C., or earlier, to about 2100 B. C., the Middle Minoan from about 2100 B. C. to about 1600 B. C., and the Late Minoan from about 1600 B. C. to the destruction of the Minoan civilization, about 1100 or 1000 B. C. The Late Minoan is contemporaneous with

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the time when Mycenae, in Argos, was powerful and rich.

In 1908 Mr. Seager conducted excavations in the small island of Mochlos, off the coast of Crete, the necessary funds being furnished by friends of the Museum of Fine Arts in Boston, by the School at Athens, and by himself. The objects which he was allowed to take out of Crete are in the Museum at Boston, and the final report of the work was published by the School. Mochlos was evidently a place of no little wealth and importance throughout the greater part of the Bronze Age, especially in the Early Minoan, the Middle Minoan I and III, and the Late Minoan I periods. Twelve houses or parts of houses belonging to this later stage were to a great extent uncovered and, though in almost every case sadly demolished by the buildings erected in Roman times, when the site was occupied by an unimportant settlement, nevertheless produced a good harvest of pottery and some interesting bronze vessels. Twenty-four tombs were opened. From the contents of these much information concerning burial customs was gained, and the objects found show the wealth and the technical skill of the people of the early times to which the tombs are to be ascribed. Perhaps the most striking objects are the vases of beautifully variegated stone and the personal ornaments (pp. 228, 229), chiefly of gold, great numbers of which came to light, among them an interesting signet ring. Weapons also were found, and much pottery which is interesting and often beautiful, quite apart from its usefulness in fixing the dates of the tombs and their contents by comparison with the pottery found at Cnossus and elsewhere. The discoveries at Mochlos are of special importance because they are, for the most part, of very early date

and show how far the inhabitants of the eastern part of Crete had advanced in the Early Minoan period; but they have been fully published and must therefore be passed over here without more detailed description.

On the mainland of Greece the excavations of the Argive Heraeum first led the School into the prehistoric field. The remains found at this important place showed clearly that the site had been occupied by man from very early in the Bronze Age, and gave ground for maintaining with no small degree of probability that the famous cult of Hera possessed roots going far back beyond the dawn of history. No satisfactory stratification, however, was revealed, since the subsequent Greek buildings had for the most part destroyed the sequence. Under the direction (and at the expense) of Professor J. C. Hoppin, who took part in the original excavations, it is planned to conduct a new campaign at the Argive Heraeum to test, in the light of the greatly increased comparative material now available from the whole Aegean basin, and especially from Crete, the prehistoric layers in and about the ancient shrine of Hera.

That the site of Corinth and its neighborhood can hardly have been without inhabitants in very early times is a natural assumption, but before the excavations were undertaken there by the School, no proof of this had been gathered. From almost the beginning of the excavations, however, sporadic finds of prehistoric objects began to be made. These included stone implements, blades of obsidian, numerous potsherds of an unusual type, and two remarkable graves cut in rock at the bottom of a vertical shaft. The presence here of these remains was explained through an important dis-

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covery made by Dr. Alice L. Walker, who observed that the hill on which stand the ruins of the temple of Apollo was also the site of a large prehistoric settlement going back to very early times. Miss Walker has conducted excavations on the hill and round about it, bringing to light undisturbed deposits of this remote age. The numerous finds form a very impressive collection and are of extreme importance for an understanding of the prehistory of Southern Greece.

Systematic exploration of the Corinthia has led to the discovery of a large number of other prehistoric sites. No fewer than ten such settlements have been recognized, lying close together in this small area forming the north-eastern corner of the Peloponnesus. At one of these, called Korakou, excavations were conducted in 1915 and 1916 by Dr. Carl W. Blegen, at present Assistant Director of the School. Here numerous foundation walls of stone laid in clay, several layers of decomposed crude brick, and eleven successive levels of habitation appeared. Three main strata are readily distinguishable. In addition to the houses, several tombs were discovered. A considerable number of miscellaneous objects—utensils and the like—came to light, but most important are the fragments of pottery; for it is chiefly by means of pottery that the changes in pre-Hellenic civilization and the relations between different places are to be determined. After the discovery of the brilliant Minoan civilization in Crete, there was a natural tendency to assume that this culture, as long as it existed, was completely dominant throughout the Aegean regions—that any civilization anywhere in those regions had its origin in Crete. Investigations at various places in the

Cyclades and on the Greek mainland have proved that this was not the case, and the discoveries at Korakou help to make clear the conditions and the progress of mainland civilization, which, though doubtless having more or less continuous trade relations with Crete, was independent of Minoan culture. The mainland civilization is called by Dr. Blegen "Helladic," and it falls into three periods, Early Helladic, Middle Helladic, and Late Helladic. The Early Helladic period is divided into three lesser periods, Early Helladic I, II, and III, the Middle Helladic into



Korakou: Walls of Prehistoric House.

two (I and II), the Late Helladic into three (I, II, and III). The Early Helladic extends from about 2500 B. C. to 2000 B. C., the Middle Helladic from 2000 B. C. to 1600 B. C., the Late Helladic from 1600 B. C. to 1100 B. C. Thus the three main periods correspond in date to the Early, Middle, and Late Minoan, except that the Early Helladic period lasts about a century longer than the Early Minoan. The Early Helladic culture, as seen at Korakou, developed through some four or five centuries, when it was destroyed by invaders from the north. The newcomers were progressive and readily assimilated ideas from abroad. The potter's wheel was in regular use, and imported types of pottery were imitated. The Late Helladic period is



Korakou: Fragments of Middle Helladic Pottery.

that represented by the splendid remains of Tiryns and Mycenae. Although the objects found at Korakou are of little or no intrinsic value, and seem at first sight to be of no importance, they have, nevertheless, made it possible to draw—in somewhat broad and vague outlines, to be sure—a preliminary sketch of the history of the Corinthian region for some 1500 years before the “Dorian Invasion.”

In the spring of 1921 a fund contributed by friends of the School made possible the partial clearing of a prehistoric settlement at Zygyouries,<sup>1</sup> about half way between Corinth and Mycenae. Remains of all the Helladic periods were brought to light. Especially interesting are numerous foundation walls of houses of the Early Helladic age. Among the small objects from this level

are a little terracotta figurine representing a woman, a button-seal of terracotta, and a fine bronze dagger, which are the first objects of their kind to be found on the mainland. From the Late Helladic period the most noteworthy discovery was a potter's workshop filled with vases numbering nearly 500. All are of Late Helladic style and quite unused. The discoveries at Zygyouries, which were fully reported by Dr. Blegen in the May number of this journal, strengthen the conclusions drawn from those at Korakou and add new lines to the sketch of the history of Greece in the times before written history was known. Complete reports of further excavations at this site will undoubtedly be of considerable importance.

The work of the School in the field of pre-Hellenic archaeology has been fruitful of results and encourages us to hope for success in future undertakings.

<sup>1</sup> See *Excavations in Greece in 1921*, by C. W. Blegen, *ART AND ARCHAEOLOGY*, xiii, No. 5 (May, 1922).



The Acropolis at Athens, from the west.

## RESEARCHES ON THE ATHENIAN ACROPOLIS

Within full view of the American School on Mt. Lycabettus, and only  $1\frac{1}{4}$  miles distant as the crow flies, rises the shrine of every student of classical civilization, the Acropolis of Athens. Here is no site for the spade of the foreign excavator; generous as is Greece in granting concessions elsewhere to the foreign schools, she has with propriety reserved the shrine of Hellenic civilization for herself. The era of the spade, furthermore, was practically closed with the end of the last great excavations thirty years ago. But excavation is only a preliminary stage; the analysis and interpretation of the finds may go on forever, and in these studies the Greeks have always welcomed foreign cooperation. A natural result of propinquity and of Greek hospitality is the great share of our attention which the Acropolis has claimed.

As long ago as 1820 Colonel Leake wrote, "we are at length arrived, after a gradual approximation to the truth from the middle of the seventeenth century, at a correct knowledge of those

magnificent buildings which adorned the citadel of Athens; not that many curious discoveries upon the monuments of the Acropolis may not still be made, when its platform shall have been cleared of the wretched dwellings which now cover its soil, and disfigure its appearance, but that in regard to the three great buildings, the Propylaea, Erechtheum and Parthenon, *it is probable that very little remains to be done.*" The very next year saw the beginning of the Greek War of Independence; and on the establishment of the Greek Kingdom there followed a period of feverish activities on the Acropolis, the excavations by Ross and Pittakis revealing masses of sculpture and inscriptions, and even buildings hitherto unknown, such as the temple of Athena Nike and the Old Propylon. In the field of architecture perhaps the most striking results were the investigations by Penrose, and the restorations (unfortunately mediocre), not only of the temple of Nike but also in the Parthenon, Erechtheum, and Propylaea. And so, after fifty years, Adolf Michaelis was

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able to say, "At the present day, the entire mass of debris on the Acropolis may be regarded as so thoroughly examined, that *we can no longer reckon on further discoveries.*" But then came the great excavation of the entire site by the Greek Archaeological Society, under the superintendence of Kavvadias, 1885-1891, with results of vast importance for the study of early Greek art. The history of the Acropolis during the archaic period, hitherto practically unknown, was now an open book for those who could interpret the new finds of sculptured and architectural fragments. In the field of architectural investigation we meet another dominating figure, that of Dörpfeld, whose studies and methods have characterized the last forty years; and in the field of architectural restoration must be noted the masterly reconstructions of the buildings on the Acropolis, carried out by the Greek Archaeological Society, and afterwards by the Greek Government, under the superintendence of Balanos. And now that another half century has passed since Michaelis wrote, who would be so rash as to assert that the work is done, that little more remains to be discovered?

What has the American School accomplished toward the solution of these problems? What are the possibilities for its future members? These questions may best be answered by a general survey of its work in the past.

In 1882 seven young men, the first members of the American School, appreciating the magnitude of the field before them, decided that the only method of securing results was to subdivide and specialize. In this specialization the Acropolis naturally shared; one, H. N. Fowler, chose the most puzzling building on the Acropolis, the Erechtheum; another, J. R. Wheeler,

the theatre of Dionysus on its southern slope. Professor Fowler's essay on the Erechtheum is of special interest because it marks the beginning of American studies of that structure which are now culminating, after forty years, in a definitive publication, to which Professor Fowler contributes the chapter on sculpture.

While specialization has continued to be the guiding principle at the School, work of a more general nature has not been neglected. General discussions of the history and topography of the Acropolis as a whole are numerous in many languages, but none was more useful in its time than a dissertation written by a student of the School, Professor Walter Miller. This has now been superseded by the monumental handbook, *The Acropolis of Athens*, by a former Director of the School, Professor D'Ooge.

Returning now to detailed investigations of the Acropolis, we may refer first to architecture. Here it would seem that the field was very limited; among those who had sifted the material we recall such notable figures as Penrose and Dörpfeld; in our libraries stand the great folios of Stuart and Revett, Inwood, Ross, Penrose, Michaelis, Bohn, and Collignon, and the series of beautiful drawings by the pensionnaires of the French Academy at Rome, as well as a host of special articles. Yet a survey of all these works reveals innumerable gaps and inaccuracies; some, like Penrose, were interested primarily in a single phase; and there are many questions on which the publications are absolutely silent, and one must still resort to the buildings themselves. An opportunity without parallel, furthermore, arrived when the systematic restoration of the buildings was begun in 1897; not only did



The Erechtheum, from the southwest.

*German Institute Photograph.*

scaffolding for the first time bring every part within reach; but the work of reconstruction sometimes momentarily revealed surfaces which had not been exposed since the days of Pericles, while other surfaces, long exposed and containing valuable evidence, were now concealed forever. It remained for Dr. Heermance, who became Director in 1903, to seize the opportunity,—and now the scaffolding had been moved to the Erechtheum, the temple which had first engaged the School's attention twenty years earlier. With the consent of the Greek authorities, an architect was attached to the School largely for the purpose of recording the evidence while it was still accessible; and this position has been filled successively by G. P. Stevens, Gordon Allen, H. D. Wood, W. B. Dinsmoor, and L. B.

Holland. The buildings studied in greatest detail, therefore, have been those in course of reconstruction since 1903; but it will be seen that the others have not been wholly neglected. And of the results of these American investigations no better appreciation could be desired than the words of the master of architectural ratiocination, Dörpfeld, in a short article published in 1911, "Zu den Bauten Athens."

The Parthenon has been subjected to such detailed studies by Penrose, Magne, and others, as to give the erroneous impression that it has been thoroughly published. As a matter of fact, few temples have been less satisfactorily published; yet it is doubtless because of the apparent exhaustion of the subject that the School has not been concerned with its architectural

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features. The plan alone was surveyed by Dinsmoor in 1910, in connection with Hill's study of the earlier temple. Greater interest attaches to the investigations of such accessories as the sculpture and inscriptions. Sir Charles Walston, while Director, published articles on the Panathenaic frieze, and particularly on a new fragment showing the head of Iris; W. S. Ebersole took advantage of the scaffolding to study the metopes of the west façade; Alfred Emerson and Miss Perry (Mrs. Durand) investigated the pedestal of the cult statue, and D. M. Robinson contributed a valuable study of the reproductions of the Athena Parthenos. The epigraphical studies of E. P. Andrews, on the great Neronian inscription, and of Dinsmoor on the building accounts, will be mentioned later.

If little has been done with the Parthenon as an architectural monument, the contrary is the case with its predecessor, the Older Parthenon. In 1909 a chance observation, that some marble step blocks scattered on the surface of the Acropolis had been incorrectly employed in Dörpfeld's study of the Older Parthenon, led the present Director of the School, Dr. Hill, to make a new investigation of these steps and of everything connected with them. Most unexpected were the results: a block of pink Kara limestone imbedded under the present Parthenon, hitherto regarded as a piece of a top step re-employed merely as filling, was proved to be in its original position, the corner block of the lowest step of the Older Parthenon; and diligent probing with an umbrella rib through the cracks in the present structure revealed a continuous line of similar blocks under the entire south flank of the temple. The excavation of a hitherto unopened grave of mediaeval church dignitaries

under the northeast corner of the Parthenon revealed the north edge of the earlier and narrower platform cut in solid rock. And when the plan of the Older Parthenon was restored according to these and other indications, it was found that the upper steps were not, as previously supposed, of limestone, but of marble, and that the width was too narrow for Dörpfeld's restoration of an eight columned façade, but was exactly right for six columns. All the unpaved areas inside the Parthenon were excavated anew;<sup>1</sup> and in one of them was found, though not in its original place, a moulded base, a corner block of the inner building of the Older Parthenon; it had been seen by Lord Elgin's workmen in 1802 but was never understood. Blocks of the same moulded base could be felt, though not seen, in the thick wall pierced by the doorway to the Turkish minaret, where they had been employed as filling by the Periclean builders. Dörpfeld himself was the first to retract his theories in favor of the new restoration; and Collignon took due cognizance of the new facts in his great book on the Parthenon. This was not merely a question of the recovery of a new temple plan. The Older Parthenon was the first Athenian temple to be constructed of marble, and as such it was the starting point of the Periclean theories of design; even its columns were incorporated bodily in the present Parthenon, and so determined the latter's scale and dimensions. On history, too, the new discovery sheds considerable light, and incidentally discloses some of the dangers of ratiocination: Dörpfeld had assumed that there were three successive Parthenons—two, the *poros* and the Older Marble Parthenon, never

<sup>1</sup> All these areas except the northeast grave had been uncovered during the Greek excavations in 1889.

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completed, and the third the present structure. But now the *poros* Parthenon disappears as a myth, its sole basis, an assumed incongruity between a limestone stylobate and marble columns, and an assumed coeval terrace wall, eliminated because there never was a limestone stylobate, and because the terrace wall contains fragments of marble columns of the very temple which Dörpfeld thought it was intended to support. And the Older Marble Parthenon emerges as the only predecessor of the present temple, the creation of Themistocles and Aristides after the battle of Marathon, a memorial of victory over the Persians which the Persians themselves demolished upon their return.

The second of the great temples, the Erechtheum, had, as we observed, been studied by Professor Fowler in the first year of the School's existence. No complete publication of it has appeared, however, since the days of Revett and Inwood; and these antiquated drawings of 1754 and 1818 are still serving the needs of our modern architects who reproduce *ad infinitum* the details of the temple. But in 1903 the School took advantage of the scaffolding which had been placed round the Erechtheum, and secured the services of a trained architect, Gorham Phillips Stevens, now Director of the American Academy in Rome. The drawings which he produced during the next two years were a revelation in the art of archaeological presentation of an ancient building, in respect not only to beauty, but also to thoroughness and accuracy. One set of these drawings aims to present the actual appearance of the building today; a plan, and elevations of all the walls, both inner and outer faces, give a complete view of its present state, with all important dimensions; new marble in-

serted during the modern reconstruction is carefully distinguished from old; original blocks erroneously placed upside down by Pittakis are so indicated, as well as modern ironwork; and all ancient constructive details, such as clamps and dowels, are brought out as clearly in the drawing as on the actual temple. A second group of drawings gives, at a smaller scale, a complete set of restorations, plan, elevations from the four cardinal directions, and sections. Most useful to the present-day architect is a third group, consisting of eleven plates of details at a large scale, besides two plates of full size profiles, many here identified and drawn for the first time. Plates of special assemblages of stones, and numerous text illustrations, complete the series.

It had been the original intention to accompany the drawings with a complete history and description of the temple, and this work was divided among Messrs. Heermance, Fowler, and Caskey. The death of Dr. Heermance caused a long delay in the completion of the text, which, however, permitted Stevens to bring his drawings up to date in accordance with the final restorations on the temple, terminated in 1909. And now, under the able editorship of Dr. J. M. Paton, it seems that the date of publication is close at hand. Meanwhile some minor studies have already appeared: Stevens himself published one of his most illuminating discoveries, that of the windows in the east wall; G. W. Elderkin and C. H. Weller have published suggestions as to the hypothetical original plan, or lack of it; Hill and Caskey have contributed several articles on the architecture as solved by the building inscriptions, while O. M. Washburn and Dinsmoor have written concerning the inscriptions themselves; on the ancient history of

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the temple and its predecessor, the Old Temple of Athena, may be cited the articles of W. N. Bates, A. S. Cooley, Fowler and J. W. White, and on the mediaeval and modern history, the notes of Dr. Paton.

Among the most striking discoveries represented in the new drawings, a few must be noted even in this brief review. In the plan, the most notable feature is the longitudinal partition which divides the west cella into two parts, as in the Old Temple of Athena, a discovery due to Hill; this has an important bearing not only on the arrangement of the offerings within, but also on the derivation of the plan. The reconstruction of the hitherto unknown east windows, by Stevens, was based upon the identification of a wall block notched to receive the end of a window sill, and of another with dowels for the end of a window lintel; fortunately these could be accurately located, and thence he proceeded to the insertion of elaborately carved lintels and jambs, of which one fragment was in the British Museum. On account of the absence of supporting stones, the reconstruction of the actual windows was impracticable; but the presentation of the evidence forms a model of architectural ratiocination, and the proof of the existence of windows indicates that the east cella was from the beginning intended to receive the mural decoration described by Pausanias. Somewhat different in character was the restoration by Hill and Caskey of the *metopon* and niche at the southwest corner, for their work was based largely upon non-existent stones described in the building inscriptions; yet it is a convincing account of the irregular device which simultaneously housed one of the minor cults in the Erechtheum and eliminated a burden of six tons of marble from the

great lintel spanning the grave of Cecrops and supporting the Porch of the Maidens. The opening and shaft in the ceiling and roof of the North Porch, by means of which the lightning-scars on the rock below the floor always remained exposed to the sky, was not, to be sure, an American discovery; Balanos and his Greek associates obtained the clue from a coffer slab in the British Museum, and from two slabs of the lining of the shaft itself, which they were able to replace on the building; but the new drawings are the first to present the evidence in full. Other new facts about the temple will be discussed in connection with the epigraphical material.

The third great building on the Acropolis, the Propylaea or monumental gateway, had been published by Richard Bohn in detailed form in the very year of the foundation of the School, 1882; but immediately after the appearance of this work it was in large part superseded by Dörpfeld's two masterly articles on the form of the two projected east halls and on the projected and actual form of the southwest wing. And there the matter rested, until in 1909 the Greek Government undertook the reconstruction. But meanwhile the Americans had begun their studies; in 1903 Dr. Hill ascertained certain facts with regard to the spacing of the projected beams and triglyphs in the northeast hall, facts which necessitated a considerable revision of Dörpfeld's plan. Then the third architect in the School, H. D. Wood, devoted himself chiefly to the study of the west wings, which he reconstructed on paper, stone by stone, until the puzzling details of the roofs, hitherto uncertain, were conclusively settled. Most interesting, perhaps, was the discovery of the suspended



The Propylaea, from the east.

frieze and the special hipped roof which covered the key-like projection forming the false northwest corner of the southwest wing, which Dörpfeld had left flat; but of equal importance was the piecing together of the colossal tiles, projecting twelve feet from the walls, roofing the open niches between the west wings and the central building. This work was continued by the fourth architect, Dinsmoor, until, with one or two exceptions, all the stones removed to make way for the Florentine tower (demolished at Schliemann's cost in 1875) were recovered; the last step was the identification of the gutter-moulding of the southwest wing, an unusual combination of the "Ionic" *cyma recta* with the Doric cornice, wherein Mnesicles imitated the temple at Bassae. Finally, taking advantage of the scaffolding which the Greek authorities had erected in 1908, Dinsmoor began the study of the central building, and such was the

accumulation of new material that the desirability of a special volume, like that projected for the Erechtheum, soon became evident. As yet nothing had been published by the School on the subject of the Propylaea, with the exception of an article on special details by Dinsmoor. He now undertook the composition of the proposed work, with the aid of the manuscript notes by Hill and Wood, and devoted parts of ten years to the task, which is at present on the eve of completion. Following the example set by Stevens, the drawings are arranged in sets presenting successively the actual state, the restorations, the details, and the profiles. In presenting the actual state Dinsmoor adopted a slightly different point of view. Since the modern reconstruction necessarily employed some of the stones where they could be properly supported, and omitted others, he preferred a paper reconstruction in which

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all stones without exception could be placed in their original positions; the present state of the reconstructed portions is then represented for comparison on special sheets. Again, in connection with the restorations the point of view is slightly different: for we are here concerned not only with the mutilated design as actually erected, but also with the original scheme. Thus it has been necessary to show the building under four aspects: as Mnesicles originally conceived it, as it



The Propylaea: Interior, showing northeast corner.

was actually built, as it has now been reconstructed, and as it might have been reconstructed if the law of gravity could have been disregarded.

The drawings are to be accompanied by a complete history and description of the building, including the inscriptions; a preliminary edition of the building accounts has already appeared. All

portions of the building are discussed from three points of view: the identification and restoration of the actual stones, the principles of design, and the significant details of construction. Among the results which differ from those obtained in previous investigations, a few may be picked out for special mention. The important modifications of the roofs of the west wings have been noted above. With regard to the original plan of the southwest wing, it can now be shown that Dörpfeld's west colonnade was never projected. The pedestals projecting westward from the west wings, subsequently used for bronze equestrian statues, have for the first time been completely restored. As a result of Hill's determination of the triglyph spacing, the exact length of the projected east halls is now known; and it is also apparent that they were intended to have hipped roofs, and that they were not to have been open colonnades as Dörpfeld supposed. A special phase of the history of the building, a period when Mnesicles temporarily overcame the objections of the Brauronian priesthood and commenced a revised design of the southeast hall, has been made evident by significant though hitherto unnoted details. The form of the central building is so obvious as to yield little opportunity for fresh discoveries. Yet even here the arrangement of the beams of the ceiling of the east portico had never been correctly solved. And the curious make-shifts of the gable separating the higher and lower roofs of the east and west porticoes, evident as they are only in scattered stones, had not been brought out in earlier studies. Smaller details, particularly constructive details, hitherto largely neglected, play important parts in the story. Here need



West end of Acropolis: Beulé Gate in centre; Temple of Athena Nike above at the right.

be cited only the systems of balancing cantilevers over the wide spans (as in the friezes and pediments of the central building, the architrave over the main doorway, and the frieze of the southwest wing), the reinforcement of marble architraves and beams by increasing width or height, and even a system of reinforcement by means of concealed iron beams (as in the Ionic architraves), this last not an American discovery, but due to the acumen of Balanos.

The Old Propylon underlying the present structure had meanwhile been the object of a lengthy study by Professor C. H. Weller. He, like Dörpfeld, found evidence which forced him to reject the current theory that it was of Cimonian date; it was obviously pre-Persian, and now the evidence points to its being the work of Themistocles and Aristides, like the Older Parthenon. Weller's modest but effective excava-

tion cleared several doubtful points concerning the internal and external arrangements, particularly in connection with the steps and forecourt. Additional small excavations by Dinsmoor have permitted some revisions; more rock-cut steps have appeared at the entrance, and the total width of the building as restored by Weller must be greatly increased; so that the whole will be republished in the monograph on the Propylaea. All search for the superstructure has been fruitless; we are forced to the conclusion that, as in the case of the Older Parthenon, the superstructure had not been erected when the Persians stormed the citadel in 480 B. C., and that the temporary restoration by Themistocles was of makeshift materials which have quite disappeared.

Another early monument underlying the Propylaea is the prehistoric

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Mycenaean wall, discussed in Professor J. W. White's article (in Greek) on the Pelargikon. Its facing of marble metope slabs, added by the sons of Pisistratus, has been studied in connection with the Old Propylon. And it is possible that two similar second-hand metopes, containing regulations for conduct within the Acropolis and studied at length by Dr. Hill, were set up in the immediate vicinity in 485 B. C.

The temple of Athena Nike, the first of the Athenian monuments to be reconstructed in modern times, has been frequently published, but never correctly. Its history, furthermore, is so intimately bound up with that of the Propylaea that a republication by the School seemed a fitting undertaking. An additional incentive was the identification of the original cornice by Stevens. The cornice assigned to the temple in all the published restorations is much too large in scale, and really belongs to the North Porch of the Erechtheum, while the new cornice is, as it should be, an exact replica of that of the vanished temple on the Ilissus. On the top of this cornice, moreover, are clear traces of pedimental statuettes, such as the handbooks declare to have been omitted in this temple. For these reasons, Dinsmoor made a thorough study of every stone in the temple; it was possible to ascertain the proper positions of many which had been wrongly replaced in 1835-1844, and to identify several others which had been omitted during that reconstruction. The date of the structure, long a subject of dispute, can now be definitely stated as about 435 B. C., contemporary with the last work on the Propylaea and with the beginning of the Erechtheum. The new drawings and discussion will be included in the mono-

graph dealing with the Propylaea and the West Slope in general.

A pendant to the temple of Nike is the pedestal of Agrippa on the north side of the approach to the Propylaea, the colossal rectangular shaft formerly surmounted by a four-horse chariot, always hitherto regarded as an example of Roman bad taste and a disgrace to the Acropolis. Beulé in 1852 found it tottering on its foundations and was tempted to let nature take its course; but conscience prompted him to make needful repairs. Now, however, the pedestal has acquired new interest: it is not Roman, in spite of the inscription of the son-in-law of Augustus. For Fauvel, Napoleon's consul at Athens, had left in his manuscript notes an observation that the inscription was placed on a rough rehewn surface, and Dinsmoor, finding this note, was thereby prompted to make detailed investigations, which fully vindicated the Greek character of the pedestal. Traces of two superposed inscriptions, and thirty-two hoof-cuttings, bore witness to its double employment; and the Pergamene character of the workmanship connected it with certain literary notices which indicate that the vicissitudes of the monument were as follows: It was erected by the Attalids of Pergamum at about 175 B. C., after a Panathenaic victory in the chariot race; the colossi of Eumenes and Attalus were subsequently replaced by statues of Mark Antony as the New Dionysus and of Cleopatra as Isis, statues which were appropriately overthrown by a hurricane on the eve of the battle of Actium; then the victorious general Agrippa usurped the pedestal.

At the foot of the slope lies the Beulé Gate, a late Roman monument of little interest apart from the second-hand materials of which it is composed. Of

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these older blocks, however, only those in the upper part of the marble screen had been identified by Dörpfeld in 1885 as coming from the choragic monument of Nicias. But a new survey of the gate by Dinsmoor, in connection with his study of the west slope, indicated that the *poros* limestone towers were likewise composed of portions of the same monument. And his discovery of the actual foundations of the monument of Nicias, showing that it was not demolished when the Odeum was built in 161 A. D., made possible a much later date for the gateway, as indeed its workmanship would indicate.

The monument of Nicias must likewise be included among the monuments of the Acropolis, for most of its remains are now in the Beulé Gate, and the foundations themselves were found by Dinsmoor in 1910 on the south slope near the theatre. Even before the discovery of the foundations, however, the identification of numerous scattered fragments of the superstructure had made it apparent that the monument was not a mere façade against the rock, as Dörpfeld had supposed, but a free-standing building, of temple shape, with a portico six columns in width and two in depth. The foundations, of which only two diagonally opposite corners were visible above ground, were identified by means of the size, shape, date (as evidenced by the materials), and location (for in the immediate vicinity are some fragments of the superstructure which the Romans discarded); and on the foundations, when they were afterwards excavated, lay splinters of the mouldings of the superstructure, broken off during its demolition. The architectural interest of this monument had been indicated by Dörpfeld; but the new location gives it an historical interest also, for here it was seen by

Plutarch and mistaken for the dedication of the more famous Nicias, the general.

Likewise on the south slope is the sanctuary of Asclepius, studied by members of the School in 1905. Some of the dedicatory inscriptions were published by Professor W. N. Bates. And the east stoa, a two-storied colonnade



The Monument of Agrippa.

with a mezzanine floor, a mysterious pit, and a sacred well, was measured and restored by Gordon Allen and L. D. Caskey.

In the field of architecture, therefore, the School has made definitive studies of two of the four buildings now existing on the Acropolis, the Erechtheum and the Propylaea. We may term them definitive studies, because in both cases all previous studies of the last five centuries, including even unpublished manuscripts in European museums,

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have been sifted and summarized; and in both cases the architects have examined every stone, and have had access to parts of the buildings that will never again be revealed. Of a third building, the temple of Athena Nike, our studies again have been more thoroughgoing than any hitherto undertaken; but here the same finality cannot be claimed, because it will only be when the temple is eventually taken down and rebuilt that some of the minor problems can be solved. With regard to the fourth building, the Parthenon, only special features have been investigated. But five of the lesser monuments, the Old Propylon, the pedestal of Agrippa, the Beulé Gate, the monument of Nicias, and the east stoa of the Asclepieum, have been studied to the last detail. And as for publication, two monographs are already on the eve of appearance: one, that on the Erechtheum, will present the masterpiece of Ionic architecture for the first time in worthy form; the other, that on the Entrance to the Acropolis, will give us the typical Doric orders of the Propylaea, and also its internal Ionic order, the Ionic temple of Nike, and certain neighboring monuments such as the Old Propylon, the pedestal of Agrippa, the Beulé Gate, and the monument of Nicias, as well as certain related structures such as the monument of Thrasyllos, the temple on the Ilissus, and the greater propylaea at Eleusis. Other architectural studies have been presented from time to time in the form of articles. It would be a lasting service if future investigators would complete the series dealing with the Acropolis by adding a third publication on the Parthenon, and a fourth on the lesser buildings, both pre-Periclean and post-Periclean.

In the field of sculpture less has

been done. Special studies of the sculpture of the Parthenon have been noted above. Full descriptions of the sculpture of the Erechtheum and of the temple of Nike will be included in the monographs dealing with those structures. Among studies of isolated pieces, we should mention that of the so-called Mourning Athena by Miss Bennett (Mrs. Anderson), that on the Artemis Brauronia by John Pickard, and a few notes on the Athena Promachos by Dinsmoor.

There is, however, another field in which the School has been particularly active, that of epigraphy. Beginning with Professor C. D. Buck's publication of some of the inscriptions found during the great excavations, epigraphical studies have nearly kept pace with those of the architectural monuments. Though the field may outwardly appear to have been thoroughly exploited, yet fresh possibilities await one at every turn. Sometimes results have been attained only after gymnastic feats involving great personal risk. Such was the case when E. P. Andrews in 1896 lowered himself day after day from the cornice of the Parthenon, and, seated in a rope swing, secured squeezes (paper casts) of the nail holes on the architrave of the east façade. Frequently the squeeze would be torn away by the high wind before it was dry; even the ropes by which he was suspended were frayed by the jagged cornice; yet in the face of these obstacles he finally secured a complete record. And of what did it consist? It was merely a confused series of nail holes arranged in groups of varying formation. The next step was to determine an alphabet, a form of bronze letter for which each group of holes would form the logical attachment; and this alphabet once fixed, the decipherment progressed, until the in-

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scription was revealed as of the epoch of Nero, 61 A. D. Similar in daring were the sudden appearances of C. N. Brown at unexpected points on the Acropolis walls, as he scaled them in search of inscriptions immured in the Turkish patchwork repairs. His zeal was rewarded by the discovery of twenty unknown or erroneously read examples, the most important being a portion of a treasure-list of the Parthenon.

Though the excavation of the Acropolis was long since closed, yet new inscriptions may still be unearthed, or extracted from walls. Take for example A. C. Johnson's keen observation of a small marble foot, a foot such as might have been carved in an allegorical relief at the head of an Athenian decree, protruding from the rubble foundation of a mediaeval wall north-east of the Propylaea. The wall had been left in place because its mediaeval date had been questioned; but after Johnson had extracted four large inscriptions with hammer and drill, the Greek authorities decided that the foundations needed investigation. Johnson's share of the booty included a sepulchral colonette, an honorary decree of 287 B. C. (an exact duplicate, though more complete, of an inscription already known), and two stones of great historical importance. One was an honorary decree referring to a naval defeat of the Athenians in the Hellespont in 322 B. C.; the inscription gave the first clue to the locality of this battle, only vaguely mentioned by the historians. The other proved to be part of a treasure-list of the Parthenon, naming as the secretary of the treasurers Glaucetes, whom Demosthenes accused of stealing the sword of Mardonius, a trophy of the battle of Plataea; curiously enough, the small fragment includes a description of this

very sword. The cleaning of Christian graves inside the Erechtheum in 1915 revealed many inscribed fragments, including pieces of a well-known record of the interest paid by the Athenian state on sums borrowed from various temple treasuries. At the same time C. W. Blegen extracted several inscribed pieces, face down and therefore previously unnoted, from the Christian aisle foundations of the Erechtheum; some contained names of officers and crews of Athenian triremes.

Less spectacular is the work on the pieces brought long ago from the Acropolis to the Epigraphical Museum, work which is in part the revision of well-known inscriptions, and in part the piecing together of fragments as yet unidentified. But even this may have the thrills of the picture-puzzle. One of the most notable Acropolis inscriptions is that known as the Hekatompedon inscription, containing the regulations for conduct within the Acropolis in 485 B. C., and carved on two second-hand marble metopes from the oldest temple of Athena. In spite of its familiarity, the first slab had always been mistaken for the second, and the second slab had never been pieced together, until Dr. Hill undertook the problem. Here, too, should be mentioned the studies of Edward Capps on the stones from the south slope, containing the records of dramatic victors in the Theatre of Dionysus. Of the same character have been the studies of the fifth century architectural inscriptions. Those of the Erechtheum, on account of their number and great intrinsic interest, have attracted the most attention. Washburn made the happy discovery that the lime-incrusted back of one of the Erechtheum slabs bore traces of letters, which resolved themselves into a con-

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tinuation of the same inscription. Less pleasant was the result of Dinsmoor's accidental discovery that fragments of two different Erechtheum inscriptions fitted perfectly, back to back, forming one and the same stone; for the upper half of the same slab, in the British Museum, is by no means as thick, and the back is roughly hewn. Consulting, in the hope of explaining this discrepancy, Chandler's story of the discovery of this slab in 1765, he read that it had originally been thicker, but that the lime-incrusted back had been chipped off in order to make it more portable—and on those chips were the specifications for the building of the Erechtheum! But the greater part of the work on the Erechtheum inscriptions is due to Caskey, whose painstaking restoration of missing letters, interpretation of doubtful architectural terms, and coördination with the actual building, have resulted in the definitive reading which will form a part of the monograph dealing with the temple. A few additional fragments were identified and arranged by Dinsmoor, carrying the record down to the year 404 B. C. But he was concerned chiefly with the more laconic records of the Propylaea, all carved on a single slab, of which only five fragments were known, and even of these some authorities were inclined to reject three; now the number of fragments has been

enlarged to twenty, all accurately pieced together. Next, assembling twenty fragments already known, and one new piece, of the accounts of the Parthenon, he found that these again were inscribed on a single slab, in eight columns; this restoration yielded several new facts with regard to the history of the temple, such as the sources of the funds, the date of the pediment sculptures, the names and dates of contemporary Athenian officials. Another series of six fragments, earlier in date, resolved themselves into a single slab inscribed in three columns; and these apparently were the accounts, covering nine years, of the erection of the colossal bronze statue of Athena Promachos, which stood between the Propylaea and the Erechtheum.

Most of these inscriptions and new readings have already been published in the form of special articles. Some of the later examples have also appeared in Kirchner's revised edition of Volume II of the *Inscriptiones Graecae*, and those of earlier date will appear in the corresponding edition of Volume I, to be published by Hiller von Gaertringen toward the close of the present year. But for the complete commentary and analysis of the accounts of the Erechtheum and the Propylaea, it will be necessary to refer to the two monographs to be issued by the School.

## THE PUBLICATIONS OF THE SCHOOL

From the earliest days of the School's existence, the Managing Committee has devoted much attention to the adequate publication of the results of investigations made by its officers and students. As early as 1885, a volume of *Papers* devoted to the researches carried on during the first

year was issued. Its contents—a study of inscriptions from Assos and Tralleis, by J. R. S. Sterrett; careful studies of three of the great monuments of Athens, the Theatre of Dionysus, the Olympieum, and the Erechtheum, by J. R. Wheeler, Louis Bevier, and H. N. Fowler respectively; and an essay on

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the battle of Salamis, by Professor W. W. Goodwin—suggest at once the problems that interested the first members of the School and the need at that time of satisfactory accounts of even the great buildings of Athens itself. In 1888, three more volumes appeared. Two were devoted to the results of exploring expeditions in Asia Minor conducted by Dr. Sterrett in 1884 and 1885, the other was again made up of several articles, including "The Athenian Pnyx," by J. M. Crow, and "The Theatre of Thoricus," by Walter Miller and W. L. Cushing, interesting as the first accounts of excavations conducted by members of the School, and a long and scholarly essay, "On Greek Versification in Inscriptions," by Professor F. D. Allen.

In 1889, an arrangement was made with the *American Journal of Archaeology*, whereby the editors agreed to publish all suitable papers offered by the Managing Committee, with the proviso that these articles might afterwards be gathered together and republished in separate volumes if the Committee so desired, an arrangement which is still in force. The Committee has twice exercised its right and issued (in 1892 and 1897) Volumes V and VI of the *Papers* of the School. In these volumes, most of the articles have to do with the results of excavations—at Sicyon, Icaria, Anthedon, Thisbe, Plataea, Eretria, Sparta, and the Argive Heraeum—and contain original material to which later students of the antiquities of these sites must constantly refer. Others, however, like C. L. Brownson's "On the Relations of the Archaic Pediment-Reliefs of the Acropolis to Vase-Painting" and H. F. DeCou's "The Frieze of the Choragic Monument of Lysicrates," continue the tradition of intensive study of the

monuments of Athens; and others still, such as "The Chorus in the Later Greek Drama, with reference to the Stage-Question," by Edward Capps, emphasize the important part which literary, as well as archaeological studies, have always played in the programme of the School.

The excavations at the Argive Heraeum, which were undertaken jointly by the School and the Archaeological Institute in 1892 and continued for four seasons, presented a new problem. Preliminary reports of the results were published in several articles in the *American Journal of Archaeology* and then reprinted in Volume VI of the *Papers*, and a *Bulletin*, issued separately in 1892, gave a fairly full account of the first campaign. But as the work progressed, it became evident that a satisfactory presentation of the results could be obtained only by the publication of one or more volumes devoted exclusively to this important site. Accordingly, the School and the Institute entered upon an agreement for joint publication, and ultimately (in 1902 and 1905) the two sumptuous volumes entitled *The Argive Heraeum*, with many illustrations, plans, and drawings, were issued. The authors were Charles Waldstein and several officers and members of the School (G. H. Chase, H. F. DeCou, T. W. Heermance, J. C. Hoppin, A. M. Lythgoe, Richard Norton, R. B. Richardson, E. L. Tilton, H. S. Washington, and J. R. Wheeler). In the spirit of modern research, these volumes attempt to present everything of importance discovered by the explorers and thus to make all the results of the excavation available to scholars everywhere. Some of the theories advanced, especially in regard to the bronze age in Greece, have not been generally accepted, but

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the two volumes will always remain important sources of information in regard to one of the most ancient and most important of Greek sanctuaries.

By the beginning of the present century, therefore, certain general principles for the publications of the School had been firmly established, namely, that articles of moderate length should normally appear in the *American Journal of Archaeology*, but longer monographs, for which full illustration was desirable, should be issued as separate volumes. *Annual Reports* and occasional *Bulletins* had also been printed as a means of acquainting the friends and supporters of the School with its progress.<sup>1</sup> In accordance with this policy, most of the numbers of the *American Journal of Archaeology* in recent years have contained at least one "Paper" of the School. Two separate volumes have been issued, *Explorations in the Island of Mochlos*, by R. B. Seager (1912), a highly important contribution to the history of Crete in the early bronze age, constantly quoted by later writers, and *Korakou, a Pre-historic Settlement near Corinth*, by C. W. Blegen (1922), in which, for the first time, the development of culture on the Greek mainland during the earlier bronze age is comprehensively studied. Two other separate publications, *The Erechtheum*, containing the admirable drawings by G. P. Stevens and text by several authors, and *The West Slope of the Acropolis and its Monuments*, by W. B. Dinsmoor, are approaching completion, and will, it is hoped, be issued in the near future. Plans have also been made for a somewhat elaborate presentation of the excavations at Corinth.

A review of the papers published in the *American Journal of Archaeology* since 1897 reveals the fact that they number more than ninety and cover a wide variety of subjects. On the whole, however, the two kinds of studies which are most represented in the earlier papers also predominate in the later articles. Many have to do with different aspects of the excavations at Corinth, such as descriptions of newly discovered buildings, or careful studies of statues and inscriptions. The *Journal* for 1903 contains six papers on the interesting discoveries made at the cave near Vari in Attica, that for 1904 six others on the work carried out at Oeniadae in Acarnania. Similar in character are the reports of Miss Harriet Boyd (now Mrs. Hawes) on "Excavations at Cavousi, Crete, in 1900," and of Miss A. L. Walker and Miss Hetty Goldman on "Excavations at Halae." On the other hand, the perennial interest of the great buildings of Athens is attested by many papers, especially in the years since 1903, when a Fellow in Architecture or Architect of the School has normally been in residence every year. To this category belong "The Metopes of the West End of the Parthenon," by W. S. Ebersole, with better descriptions and illustrations than had been available before; "The Gables of the Propylaea," "The Choric Monument of Lysicrates," and "Attic Building Accounts," by W. B. Dinsmoor; and "The East Stoa of the Asclepieum," by Gordon Allen and L. D. Caskey. The minute study of the Erechtheum, in preparation for the projected book on that complicated building, is reflected in "The East Wall of the Erechtheum," by G. P. Stevens, with its convincing proof that this wall contained a window on either side of the great door, and in "The 'Metopon'

<sup>1</sup> In the *Annual Reports* are printed not only the reports of the Chairman of the Managing Committee, the Director, and the Annual Professor, but also the Treasurer's financial statement, the regulations of the School, announcements in regard to fellowships and information for prospective students.

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in the Erechtheum," by L. D. Caskey and B. H. Hill. Even the Parthenon itself has been made to yield new evidence in regard to its earlier history in B. H. Hill's "The Older Parthenon."

This brief summary will serve to suggest the character of what may be called the "official" publications of the School. But these are far from representing the sum of its contributions to our knowledge of the life and thought of the ancients. In a number of cases, the work of its members has appeared in other journals than the *American Journal of Archaeology*. Sometimes this has been due to an accumulation of material which made prompt publication in the usual way impossible, sometimes it has seemed appropriate to offer a particular contribution to another journal. As early as 1894, Professor J. W. White published his detailed and careful discussion of the Pelargikon in the age of Pericles in the Greek *Ephemeris Archaïologike*, and later members of the School have sometimes followed his example. D. M. Robinson's monograph, "Ancient Sinope," appeared in the *American Journal of Philology* in 1906, after he had published as a School paper his "Greek and Latin Inscriptions from Sinope and its Environs." W. B. Dinsmoor's illuminating "Studies of the Delphian Treasures" were brought out in the *Bulletin de Correspondence Hellénique*, the official journal of the French School at Athens, which seemed the logical place for articles dealing with the results of excavations conducted by that school. And, for similar reasons, several other articles by members of the School have appeared in other periodicals, both American and foreign.

Finally, in an indirect way, the School may fairly claim some credit for many of the books produced by Amer-

ican scholars during the forty-one years of its existence. One is tempted, indeed, to argue that all the scholarly work of its past members might be listed in this category, since all of it undoubtedly owes much to the knowledge and inspiration gained in their years or months of residence in Athens; and few of the writers, I think, would deny the lasting influence of their contact with "the things themselves" and with the men and women whom they met at the School, whose tastes and interests were similar to their own. But such a list as this idea implies would far exceed the space allotted to this account. I shall, therefore, mention only a few books, whose authors, I am sure, would be the first to acknowledge their indebtedness to the School. The *Handbook of Greek Archaeology*, written by H. N. Fowler and J. R. Wheeler, with the collaboration of G. P. Stevens (1909), which is generally admitted to be the best introduction to the subject in any language, comes naturally to mind, since both the authors were members of the School during its first year and served it as officers for many years and Mr. Stevens was the first Fellow in Architecture. M. L. D'Ooge's *The Acropolis of Athens* (1908) and C. H. Weller's *Athens and its Monuments* (1913) show throughout the detailed knowledge which comes only from long familiarity with the monuments themselves. The *Greek Sculpture* of R. B. Richardson (1911) was largely written during the years when he served as Director of the School. J. C. Hoppin's monumental *Handbook of Red-Figured Attic Vases* (2 vols. 1919) is the work of a scholar whose term of residence in Athens is among the longest and who has also been an officer of the School. The two volumes on *Athenian White Lekythoi*

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(1907 and 1914), by Arthur Fairbanks, and those on Arretine pottery, by G. H. Chase (*The Loeb Collection of Arretine Pottery*, 1908; *Catalogue of Arretine Pottery in the Museum of Fine Arts*, 1916), would hardly have been produced, had the School not had a part in the training of their authors. *Gournia*, by Mrs. C. H. Hawes, and *The Decorative Art of Crete in the Bronze Age*, by Miss E. H. Hall (now Mrs. Dohan), which are among the important contributions made by Americans to the history of the brilliant Minoan civilization, are the work of members of the School, through whose enthusiasm the officials of the Museum of the University of Pennsylvania were persuaded to undertake excavations in Crete. G. W. Elderkin's *Problems in Periclean Buildings* (1912) was largely inspired by his years of residence in Athens; and W. W. Hyde's *Olympic Victor Monuments and Greek Athletic Art* (1921) and Rhys Carpenter's *The Esthetic Basis of Greek Art* (1921) may be cited as among the most recent books in the production of which the School at Athens may claim a share. Likewise Mitchell Carroll's edition of *The Attica of Pausanias* (1907) and his *Greek Women* (1907) found their inspiration in his sojourn in Athens as a member of the School. In

lighter vein R. B. Richardson's entertaining *Vacation Days in Greece* (1903) may be noted. And even books in which things Greek play so subordinate a part as the *History of Sculpture*, by H. N. Fowler (1916) and the *History of European Sculpture from the Early Christian Period to the Present Day*, by C. R. Post (2 vols. 1921) would probably never have been written except for the authors' residence in Greece.

American scholars are often charged with being less active in research and publication than those of other countries, and with some reason. Most of them are more heavily burdened with teaching and administrative work than foreign scholars, and until quite recently, at least, no such foundations for the encouragement of research have existed in this country as most European nations have enjoyed for many years. But the record of the School at Athens shows that even under these conditions Americans have made important contributions to the advancement of learning. With the larger endowment now in prospect and the added equipment assured by the munificent gift of the Gennadius Library, the friends of the School may confidently look forward to even more notable contributions from its members.

### THE OPPORTUNITIES OF THE SCHOOL IN THE BYZANTINE FIELD

The time has long since gone by when classical scholars looked with disdain on the artistic products of the Byzantine era. The older conception of a Chinese immobility within the Byzantine Empire has been completely exploded, and a sounder genetic view of the mediaeval Hellenic development has taken its place. Scholars have come to see that the products of the Hellenic genius evolved in mediaeval times, be they artistic or literary in form, semi-classical or popular in tone,

are of value *per se* for the proper understanding and estimate of this epoch, and for their connections with the great nexus of civilization which spread itself aforetime over the Nearer East.

This new point of view, however, has as yet not become thoroughly lodged in the consciousness of that section of the intelligent public which is interested but takes no active part in archaeological investigation; this is particularly true of the Anglo-Saxon world. It would therefore seem desirable to

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sketch briefly some of the results attained in this field already, to touch on the more important monuments hitherto published, and to point out wherein such investigations offer a fruitful and valuable field for further study.

France was the first country to take up Byzantine studies seriously. The

work of Alfred Rambaud. Much of the best work which has been done in the Byzantine field on Greek soil falls to the share of French scholars. Beginning with the nineties, the dynamic personality of Karl Krumbacher inspired a mighty increase of interest in these studies both in Germany and elsewhere; his greatest achievement



The Monastery of Daphni near Athens.

great scholars of the seventeenth century, Charles du Cange, above all, and the Benedictines of St. Maur, by their indefatigable labors laid the foundations, broad and deep, on which the edifice of modern Byzantine scholarship has been reared. France again it was, beginning with the seventies of the last century, who revived the neglected activities in this field, beginning with

was the foundation of the *Byzantinische Zeitschrift*, which became the central organ of the new branch of learning. Some three years later the establishment of the Russian Byzantinist organ, the *Vizantiiskii Vremmenik*, brought about the centralization and organization of this work in Russia, in its turn mightily furthered by the establishment of the Russian Archaeological

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Institute in Constantinople, which was primarily devoted to work in this field. Since that time labor has gone on uninterruptedly and indefatigably, until at the present day almost every civilized country can boast of several scholars who are working in some part of the field of Byzantine studies.

Greece proper is relatively barren in monuments of this epoch which are artistically of the first magnitude, but of subsidiary material there is no lack. Even so in the magnificent mosaics of the monastery of St. Luke in Phocis and that of Daphni near Athens we have glorious specimens of Byzantine monumental art at the very height of its development (pp. 251, 253). The amplitude and symmetrical character of the composition and the masterly treatment of pose and drapery are characteristic of monumental Byzantine art at its best, but are strange to most people, who are acquainted only with the sterile and schematic works of the decline. From a later period there remain to us the enthralling ruins of Mistra, the capital first of the Frankish princes of the Morea and later of the Greek despots, which are so extensive and so well preserved that the city may of right pretend to the name of the Byzantine Pompeii. A barren mountain spur some three miles from Sparta is sown with ruins of houses and palaces; among them is preserved a whole series of fascinating churches, coated from top to bottom with the most elaborate and marvelously preserved frescoes. Some of these contain picturesque and dramatic elements, while the mosaics of the older period reflect, as it were, the solemn splendor of the ritual. The single heads of the Prophets and Patriarchs show wonderful mastery of individual characterization. This is seen in the Zachariah and

in the prophets from the church of the Pantanassa (pp. 254, 255). It would be hard to equal these in the thirteenth century in western Europe, unless, perhaps, in the work of Giotto. These ruins form the subject of a splendid publication of Gabriel Millet, wherein those which are capable of being photographed are so reproduced, while sketches represent the more seriously damaged specimens. Should we wander further afield, the monasteries of Thessaly on the precipitous crags of the Meteora, the great masses of the monasteries of Mt. Athos, the mosaics and churches of Salonica, and the churches of Macedonia and Serbia form fields where only the first preliminary work of reconnaissance has been done in many cases.

On the shore of Asia Minor and on the Anatolian plateau many districts are almost untouched by the investigator, and the work of Strykowski on the Armenian churches, of Jerphanion on the Cappadocian cave frescoes, and of Sir William Ramsay and Miss G. Bell on Bin Bir Kilissé shows what far-reaching and astounding discoveries can be awaited in these barren uplands. The rich archaeological deposits of Georgia and Lazistan have only begun to yield their stores to the investigator. For all of these places Athens forms a peculiarly excellent base of operations.

But apart from the more obvious things, there is hardly a site in Greece where the excavator does not come across Byzantine materials, whose lessons are often not only valuable as imparting to us the concluding chapter of the history of a given site, but are of value for themselves as well. How brilliantly interesting this may become is shown for example by Gelzer's work on Pergamon in the Byzantine period, and the fascinating book of Wiegand



The Crucifixion. Mosaic at Daphni. *From G. Millet, Le Monastère de Daphni.*



Zachariah. Mosaic at Mistra.

*From G. Millet, Mistra.*

on Latmos. In a word, the study of the Byzantine remains will certainly be a useful and often an important by-product of the study of classical sites.

Such are some of the opportunities for

the general study of the concrete artistic remains. Even more promising is the field which awaits the investigator in the more specialized branches of Byzantine study. A rich line of investi-



A Prophet. Mosaic at Mistra.

*From G. Millet, Mistra.*

gation awaits the epigrapher; for, though his harvest will not be as great, nor his results as valuable, perhaps, as those of his confrère who devotes himself to the inscriptions of the classical period, much more remains to be done

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in this field. The fourth volume of Boeckhs' old *Corpus* is the best collection we have at present.

No small amount of documentary materials awaits the investigator in the archives of the various monasteries and churches. Much of this, it is true, is late in date, but much is still available of high value and of considerable antiquity on Athos, Patmos, and elsewhere.

The stores of manuscripts in the monasteries of Mt. Athos, while primarily of late date, contain none the less many *codices* of great value. The catalogue of Lampros does not include the most important libraries of the Holy Mountain, namely, those of Vatopedi and the Lavra. The homiletic and hagiographical manuscripts are merely noted as such by him, and are not described in detail. The hagiographical material still buried amid musty parchments offers a fruitful field for investigation for the publication of texts, for their historical evaluation, and for the compilation of catalogues of hagiographical texts and other manuscripts.

Much has yet to be done in studying and photographing the miniatures which adorn the *codices*, in making careful descriptions of them, and in classify-

ing and assigning them to a given time and milieu.

All the above points are the more timely since internationally organized undertakings are aiming to compile and ultimately to publish *corpora* of the Byzantine inscriptions and of the Greek charters, while the École des Hautes Études is collecting a *corpus* of photographs of the miniatures in Greek manuscripts. On the lives of the saints, the indefatigable and whole-hearted Bollandist fathers continue the work begun two centuries ago.

It would thus seem that with the acquisition of the new library at Athens, and with the central position of that city for investigations in the Aegean Basin, in Asia Minor, and in the Balkans, a wide and fertile field would here be open to American scholarship. The prosecution of labors in this connection is all the more vital since the Russian Archaeological Institute in Constantinople, which has devoted itself exclusively to this field, has been obliged perforce to suspend operations. Let us hope, then, that American scholarship will make its appearance here and contribute its quota towards the study of that culture which twice has lit the flame of science and civilization on the rude altars of western Europe.

### THE EXCAVATIONS AT COLOPHON

The most recent work undertaken by the School is the excavation of Colophon, one of the important cities of ancient Ionia. This is a joint enterprise of the School and the Fogg Art Museum of Harvard University, made possible by the generosity of an anonymous friend of the Museum, who offered to its Directors the sum of \$50,000.00 for a five-year campaign of excavation on one or more Greek sites. In the early summer of 1921, Dr. Hetty

Goldman, who had been appointed Field Director by the authorities of the Museum, and Dr. Hill, as Director of the School, made an extensive survey of possible sites, and finally recommended Colophon; and last spring work was actually begun under the direction of Dr. Goldman and Dr. Blegen, with most encouraging results.

From Smyrna a broad plain, ringed with mountains, stretches south. Here, against the western hills, at a distance

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of some twenty-five miles, is the site of an ancient city. Behind it, to the south and west, rise fir-covered hills, blocking it from the sea. A half-day's journey by one pass through the hills brings one to the ancient port of Notium or New Colophon, near which lay the famous shrine of Clarian Apollo, and by another pass the more western port of Lebedus was reached. Low, broken spurs from the hills straggle northward into the plain, and separate a sheltered circle from the wide stretches beyond. On the highest spur of all, backed against the hills and running out into the enclosed valley, lay the acropolis of the ancient town. At the peak was a tower, and from it rough walls of ashlar masonry ran down steeply on

either hand and then swung north, marked by occasional towers, following around the ridges and dipping across the breaks, so as to form a circle of defence some three miles in circumference. Through a gate in the gap to the east ran the road to Notium, through another at the north the road to Smyrna, and through a western gate the road to Lebedus. Through the heart of the valley in which the city lay runs a little brook fed by never-failing springs in the neighboring hills, and just to the west of the city another rushing stream, lined with plane and walnut trees and tall, waving poplars, turns the nine mills of the modern Turkish hamlet of Deirmendere.



Colophon: Looking north from Acropolis; in foreground, Public Square on terrace of Acropolis.



Colophon: Ancient Wall.

For some years past this site has been identified as that of ancient Colophon, which, according to tradition, was a flourishing town when Agamemnon sacked Troy. Some say that Calchas, the famous seer of the Trojan expedition, was buried there. The cavalry of Colophon was proverbial throughout antiquity. In the sixth century B. C., Gyges, king of Lydia, captured the city, and later it fell to the Persians. After the Persian wars, Colophon was important enough to be a member of the Ionian League, though her contribution to the common treasury was rather small. Probably, like the other Ionian cities, she profited by the conquests of Alexander, till suddenly, at the beginning of the third century B. C., an end was put to her existence. Lysimachus,

one of Alexander's generals, who fell heir to this section of Ionia, planned to make Ephesus the leading city of his dominions, and to that end not only built great fortifications there, but stripped Colophon and Lebedus and other lesser towns of their inhabitants to fill his enlarged city. Afterwards, Notium, or New Colophon, as it was sometimes called, attained to considerable importance, but the older site never ranked again as an important independent city.

The explorations carried out last spring proved conclusively that this site is really that of ancient Colophon. The quantities of bronze coins recovered leave no doubt. On many the name of the city appears, on many the image or the lyre of her patron god, Apollo, and

## ART AND ARCHAEOLOGY

on very many a youth with lance in hand bestrides a prancing horse, showing that the traditional fame of the cavalry of Colophon was more than an empty tale.

Beyond the city walls, in various localities, groups of tombs were found. At one spot these proved to be of the fourth century B. C.; elsewhere they were rich in pottery with geometric decoration, not exactly like anything so far known, but probably of the sixth century B. C. or earlier; and in one place tombs were found which, judging by their contents, were surely of the Mycenaean period. One, in fact, which had unfortunately been broken into, was a well-built beehive tomb of the Mycenaean sort. Here, then, is proof that at the end of the second millennium before Christ the civilization of Ionia was practically identical with that of mainland Greece, Crete, and the Aegean islands. Further search may reveal the Mycenaean town to which Calchas came, on his return from ravaged Troy.

The city of the sixth century probably lies beneath that of the fourth century, on the acropolis. Where soundings have been made to virgin rock, geometric pottery has been brought to light. But further investigation of the older city must wait until the later one has been fully studied. It seems now as if this would yield more information than has yet been obtained in regard to the plan of any Greek city of twenty-three centuries ago. In the valley, trial trenches have revealed the foundations of several very large structures, probably public buildings begun when the city walls were built in the period of prosperity following Alexander's conquests. It may be that the sudden end of Colophon's career cut

short these civic developments before the buildings were completed.

The hill of the acropolis is literally covered with the remains of dwelling houses, terrace on terrace rising with the slope. On the main terrace, about half-way up, several large dwellings, with living quarters, rooms of state, stairs, stables, and wells inside the courts, have been cleared. The plans are quite intelligible and fairly uniform. No Greek houses of such early date have hitherto been known except a very few at Priene, and there later constructions, of the second century, have seriously confused the plans. Between the city blocks of Colophon ran streets paved with cobbles or with dressed and fitted slabs of stone. Beneath the streets lie well-made drains of terracotta pipes. At one point on the terrace is a bathing establishment, not yet wholly excavated. In this there were at least five large rooms, some with hydraulic arrangements, and in one room there formerly stood fourteen small bath tubs of terracotta ranged side by side. Elsewhere on the terrace the city fathers of the fourth century laid out a large public square; houses and streets that interfered were condemned, and on their levelled foundations rose long, colonnaded stoas to enclose the square. Here the story of the infancy of monumental city planning is clearly told.

Beside these relics of civic and domestic life, a sanctuary of the Great Mother, Cybele, shows the religious side of Greek society. No normal Greek temple stood in this *temenos*, but instead there were a propylon, a high, stepped platform for the image or the great altar, rooms for lesser divinities or for priests, and from end to end of the outer edge of the terrace on which the sanctuary lay a long colonnade. Another campaign should complete the



Colophon: Paved street between houses.

clearing of this *temenos* and perhaps bring to light one or more temples of the normal Greek type.

From this account it is clear that Colophon is a most promising site and that, for the next few years, it will furnish an opportunity for training in actual excavation to many members of the School. Much, also, remains to be done at Corinth, where it is hoped that the long-interrupted work may soon be resumed. Many prehistoric sites await exploration, as well as important sites of the classic period. In the

exploration of the regions recently made more accessible to the explorer the School must do its share. Finally, for those whose interest lies in the later phases of Greek civilization, there are almost unlimited opportunities for researches in Byzantine history and Byzantine art, researches for which the Gennadius Library will furnish most valuable aid.

One need not be a great optimist to predict that the future work of the School will increase the reputation which it has already won.

# ARCHAEOLOGICAL NOTES AND NEWS

## *XXth International Congress of Americanists*

The XXth International Congress of Americanists was held in the Engineers' Club, Rio de Janeiro, Aug. 20-30, 1922. There was a large attendance of delegates from North and South America, and the European representation was better than had been expected. The delegates from the United States, representing the Government and various institutions were: William T. Bryant, Buffalo Museum of Natural History; Mitchell Carroll, Archaeological Institute of America and School of American Research; D. C. Collier, School of American Research; Peter H. Goldsmith, Carnegie Endowment for International Peace; Walter Hough, U. S. National Museum; Ales Hrdlička, U. S. National Museum, and American Anthropological Association; S. G. Morley, Carnegie Institution of Washington; H. J. Spinden, Harvard University; Marshall H. Saville, American Museum of Natural History and Heye Museum of the American Indian; and W. P. Wilson, Commercial Museum of Philadelphia.

H. E. Dr. Epitacio Pessoa, President of Brazil, was elected Patron of the Congress; Dr. A. C. Simoens da Silva, President; and Dr. A. Morales de los Rios, Secretary General. Among the Honorary Vice-Presidents, Drs. Goldsmith, Hough, Saville, and Wilson, and among the Honorary Secretaries, Drs. Bryant, Carroll, and Spinden were included. The Active Vice-Presidents were: Dr. Ales Hrdlička, for the United States; Dr. Levy-Bruhl, France; Miss Adele Breton, England; Dr. William Thalbitzer, Denmark.

There were twelve sessions for the reading of scientific papers and ninety communications in all were presented. The papers and discussions covered a wide field. Among the subjects considered, of most interest to Americans were the following: The Paleolithic Theory in America, by W. H. Holmes; Antiquity of Man, by Ales Hrdlička; The Mexican Excavations at Teotihuacan and Pedregal of San Angel, conducted by Manuel Gamio, and presented by J. Reygardus Vertiz; Archaeological Studies in the Argentine Republic, by Dr. Salvador Debenedetti; Guarany Ethnology and Civilization, by Dr. M. Bertoni; Cultural Parallels among Arctic Peoples, by Dr. W. Thalbitzer of Copenhagen Museum; Some Unpublished Manuscripts in the British Museum bearing on Pre-Columbian Brazil, Miss Adele Breton; Contributions to the Archaeology of South America, by Dr. Franz Heger, of Vienna; Turquoise Mosaic Art in Ancient Mexico, by Marshall H. Saville; Comparative Chronology of the Old and New World, and Civilization in the Humid Tropics, by H. J. Spinden; Chronological Yardstick of Ancient America, and Researches at Tulum, Mexico, by S. G. Morley; The Ethnological Collection from the Amazon in the U. S. National Museum, and Fire Origin Myths of the New World, by Walter Hough; The Petroglyphs of Guadalupe, by Jules Claine; and a Comparative Study of Mediterranean and Pre-Columbian American Architecture, by Mitchell Carroll.

The Congress unanimously voted to hold its XXIst International Session in Holland and Sweden in 1924 and an invitation was favorably considered to hold the XXIInd International Congress of Americanists in Philadelphia in 1926, in connection with the Sesqui-Centennial Celebration.

*School at Athens: Letter from Prime Minister in reply to Mr. Root's Letter about the Gennadius Library (ART AND ARCHAEOLOGY, September, 1922)*

*Excellence:*

Athènes le 6 Juillet 1922.

J'ai eu l'honneur de recevoir votre aimable communication par laquelle vous voulez bien m'annoncer ainsi qu'aux membres du Cabinet sous ma présidence, que la Carnegie Corporation a affecté une somme de 200,000 dollars pour l'erection a Athènes d'un bâtiment destiné a recevoir la Bibliothèque et autres collections offertes à l'École Americaine d'Études Classiques d'Athènes par S. E. Monsieur Joannes Gennadius, ancien Envoyé Extraordinaire et Ministre Plénipotentiaire de Grèce à Londres.

Mes collègues du Cabinet me chargent de vous transmettre ainsi qu'aux membres de la Carnegie Corporation nos chaleureux remerciements pour la genereuse donation qui servira à ce monument.

Le Gouvernement Hellénique est heureux de disposer a cet effet d'un terrain avoisinant l'École Americaine. A l'occasion du dépôt du projet de Loi pour l'expropriation du terrain en question, l'Assemblée Nationale m'a chargé de vous exprimer toute la gratitude que la donation de la Carnegie Corporation a provoquée parmi ses membres.

Il nous est particulièrement agréable de pouvoir contribuer à resserrer encore plus les liens intellectuels qui unissent si heureusement nos deux peuples.

(Signed) P. E. PROTOPADAKIS,

*Président du Conseil des Ministres du Royaume de Grèce.*

## BOOK CRITIQUES

### AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

#### KORAKOU

A Prehistoric Settlement near Corinth

BY

CARL W. BLEGEN, PH. D.

xv X139 pages and 8 plates, of which 5 are in color.

The excavations of which this book is the official report brought to light stratified remains of the bronze age and made possible a classification of pottery of the Greek mainland between 2500 and 1100 B. C. Besides the pottery, walls and floors of houses and various objects of minor art were discovered, by means of which the picture of the civilization that preceded the "Mycenaean" age and of that age itself is made clearer.

The price of the book is \$5.00, but to members of the Archaeological Institute a reduction of 25% is offered, making the price \$3.75.

The Publication Committee also offers two of the earlier publications of the School at greatly reduced prices, as follows:

Waldstein's *Argive Heraeum* (2 volumes), bound in cloth, \$20.00; unbound, \$10.00.

Seager's *Explorations in the Island of Mochlos* (boards) \$3.00.

Checks should be made payable to the Chairman of the Publication Committee, Professor George H. Chase, 12 Shady Hill Square, Cambridge, Mass.

*Andrea Della Robbia and His Atelier.* By Allan Marquand. 2 vols. Princeton University Press, 1922.

All lovers of the Florentine art of the 15th and 16th centuries will rejoice that Professor Marquand has so soon been able to add the "expected" monograph on Andrea to those on Luca and Giovanni della Robbia. His first volume, devoted to the art of Luca della Robbia, was not only a work of fine discrimination and thereby of the utmost scientific value, but also a distinct contribution to the inspiring pleasures of human life.

In the monograph on Giovanni della Robbia which followed it, the scientific interest was perhaps rather exclusive of aesthetic appreciation, as if the author felt that he had exposed in the earlier volume all that was needful to an enjoyment of Robbian art. But in this monograph, while the scientific mind is gratified by the array of documents and the helpful comparison of artistic motifs, the reader will find, scattered through the pages, a wealth of illuminating comment, that can not fail to lure him on with undiminished eagerness.

The monograph is divided naturally into two parts:

1. The monuments which can with some degree of certainty be attributed to Andrea himself.

2. Those which for the present at least must be regarded as the work of the Atelier, without determining their definite relation to the master or to the individual pupils and assistants.

In each class the arrangement is by decades, beginning with the year 1470. At this time Andrea's uncle, Luca, had reached the age of seventy. Andrea was his most distinguished pupil and his natural successor in the business, the direction of which was doubtless already passing into his hands. Hence it is reasonable to suppose that Andrea, at the age of thirty-five, had no longer to depend on his uncle for all the designs of the increasing number of works ordered from the atelier in the Via Guelfa. For an indefinite period, however, the execution would be marked by certain features of Luca's handling. By 1480 Andrea had developed an individual style, as the Annunciation at La Verna and Osservanza Coronation amply prove (see Figs. 40 and 45), and these two master-pieces have a "decorative charm" that, added to the refined handling of a religious subject, establishes Andrea's claim to high rank among the exponents of Florentine art.

It would be a pleasure to follow this development through the long series of works so well illustrated in the two volumes, if only to make

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evident what a store of delight awaits the reader, but the limitations of space forbid.

These limitations prevent also any adequate discussion of the questions which must arise in the mind of one familiar with most of the works described. Professor Marquand presents his lists and attributions with a disclaimer of finality, granting that while many of the works may be documented and dated, there remain an immense number subject to future revision. This need not frighten the reader who is more interested in art than in archaeology, though he may not be able to see that Andrea has represented the Virgin with "bare knees" (Fig. 2), certainly not evident in the photograph, nor in the Cantigalli cast; that the Virgin is not supporting the child with her right hand, while clouds are under his feet (Fig. 277). It is also the Archangel Raphael who is conducting Tobias (Fig. 138) instead of Gabriel as stated; but the last two are small matters. More important is a certain amount of confusion, especially noticeable in the second volume, produced by the somewhat arbitrary arrangement of the works in decades, combined with subject grouping; also the lack of a list of illustrations with location of the work, which would facilitate the search for an individual example, and the comparison of one with others.

The make-up of the volumes, like that of the preceding ones in the series, is a worthy product of the Princeton Press.

R.

*Etruscan Tomb Paintings: their Subjects and Significance.* By Frederick Poulsen (trans. by Ingeborg Anderson). New York: Oxford University Press, 1922.

The Romans were not very different from other nations in their careless historical attitude toward peoples who once upon a time were their superiors. Each decade brings new evidence that the great people of early Italy were the Etruscans.

The publication and illustration of Greek vase painting, and Roman wall painting and relief sculpture, and Egyptian and Hittite tomb and relief decoration have been throwing new light on the every day lives of those peoples. Nearly a hundred years ago many tombs of the Etruscan nobility were opened and the wall paintings in them noted in a cursory and unscientific manner. Those paintings, although sadly marred by vandalism and faded by dampness, are fortunately engaging renewed attention. A German named Weege has done some very good work, and a mass of unpublished Etruscological material of all kinds is forming under the hands of C. Densmore Curtis, Asso-

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ciate Professor in the School of Classical Studies of the American Academy in Rome.

The book here under review, although very brief, is of particular importance because it contains forty-seven clear plate figures, and especially because its author is the Keeper of the classical department of the Ny Carlsberg Museum in Copenhagen, where are the facsimiles and drawings of many wall paintings of Etruscan tombs made some thirty years ago.

Poulsen has followed the correct method of chronological comparison of style and matter, giving extraneous influence on technique and decorative detail a proper but subordinate place. He finds in the *Tomba Campana* at Veii ornamentation like that of seventh century B. C. Greek vases, where no narrative element is present. He then traces the development of style and content through various tombs, identifying scenes from Greek myths with certain variations.

These two types of decoration had their vogue before strictly funeral scenes began to appear in the tomb wall paintings, and in the verve of the work, and in the richness of accessories to banquet, funeral processions and ceremonies, Poulsen sees a corresponding Etruscan military, political, and social greatness.

By a comparison of work in one tomb, the *Tomba del Barone*, at Corneto, where certain marks made in Greek by the decorator explained the noticeable Ionic influence on the painting, with that of many others, the author seems to have arrived at some very sensible conclusions about the Etruscan outlook on life and death.

There is a group of tombs, of which that of the Chariots (*tomba delle Bighe*) is typical, dating about 500 B. C., in which the wall painting has very much in common with the late black and early red figured Attic vases. He finds also decoration which comes from other places, such as the pointed cap (*tutulus*) that seems to be Hittite in origin. In one painting the "widow" is portrayed with her sunshade, an oriental fashion that Greek women had adopted by the time of the Peloponnesian war (Aristophanes, *Knights*, 1348, *σκιάδειον*).

The nicest piece of work which Poulsen does is to demolish the arguments of Weege and others that all women depicted at banquets with men are *hetaerae*. He shows incontrovertibly that in these tomb paintings the women at the banquet couches are brides or matrons.

The translation into English by Ingeborg Anderson—for the book was originally published in 1919 in Danish as a Museum guide—is excellent.

RALPH VAN DEMAN MAGOFFIN.  
*Johns Hopkins University.*

